

IN THE CIRCUIT COURT OF THE FIRST CIRCUIT

STATE OF HAWAII

SIERRA CLUB,	)	
	)	Cv. No. 19-1-0019
Plaintiff,	)	
	)	
vs.	)	
	)	
BOARD OF LAND AND NATURAL	)	
RESOURCES, et al.,	)	
	)	
Defendants.	)	
	)	

TRANSCRIPT OF PROCEEDINGS

Had before the HONORABLE JEFFREY P. CRABTREE, Judge presiding, on AUGUST 14, 2020, regarding the above-entitled matter; to wit, FURTHER JURY-WAIVED TRIAL.

APPEARANCES:

DAVID KIMO FRANKEL, ESQ.	For the Plaintiff
DAVID SCHULMEISTER, ESQ.	For Alexander &
TRISHA AKAGI, ESQ.	Baldwin
WILLIAM WYNHOFF	For State of Hawaii
MELISSA GOLDMAN	(DLNR/BLNR)
Deputies Attorney General	
CALEB ROWE	For County of Maui
Deputy Corporation Counsel	

REPORTED BY:

Jamie S. Miyasato  
Official Court Reporter  
First Circuit Court  
State of Hawaii

I N D E X

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22  
23  
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25

WITNESSES

Page

JEFFREY PEARSON

Direct Examination by Mr. Rowe.....	7
Cross-Examination by Mr. Schulmeister.....	26
Cross-Examination by Mr. Wynhoff.....	38
Cross-Examination by Mr. Frankel.....	40

AYRON M. STRAUCH, Ph.D.

Direct Examination by Ms. Goldman.....	52
--	----

EXHIBITS

Page

Exhibit M-4.....	15
Exhibit M-5.....	17
Exhibit M-6.....	18

1 AUGUST 14, 2020

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3 THE COURT: We are on record. FTR on?

4 THE CLERK: Yes, it is.

5 THE COURT: Good morning, everyone. Please  
6 call the case.

7 THE CLERK: The Circuit Court of the First  
8 Circuit is now in session. Calling Case No. 1 on the  
9 calendar. Civil No. 19-1-0019, Sierra Club versus Board  
10 of Land and Natural Resources. Jury-waived trial.  
11 Counsel, appearances please starting with the plaintiff.

12 MR. FRANKEL: Good morning, Your Honor. David  
13 Frankel with the Sierra Club. And appearing virtually  
14 with me as well is Marti Townsend.

15 THE COURT: Good morning. Welcome.

16 THE CLERK: And A&B.

17 MR. SCHULMEISTER: Good morning, Your Honor.  
18 David Schulmeister and Trisha Akagi for Alexander &  
19 Baldwin and East Maui Irrigation Company.

20 THE COURT: Good morning. Welcome to you both  
21 as well.

22 THE CLERK: And State of Hawaii.

23 MR. WYNHOFF: Good morning, Your Honor.  
24 William Wynhoff, Melissa Goldman, Linda Chow, and Lauren  
25 Chun without their video on, deputies attorney general

1 appearing on behalf of the State of Hawaii. Ms. Case, as  
2 we discussed yesterday, is not here with us today.

3 THE COURT: All right. Thank you. Good  
4 morning. Welcome.

5 THE CLERK: And County of Maui.

6 MR. ROWE: Good morning, Your Honor. Deputy  
7 Corporation Counsel Caleb Rowe on behalf of the County of  
8 Maui. In here with me is Jeff Pearson, the Director of  
9 Water Supply, as well as my assistant Candace Stahl,  
10 who's going to be helping me with exhibits.

11 THE COURT: Good morning. Welcome.

12 Good morning, Mr. Pearson.

13 THE WITNESS: Good morning.

14 THE COURT: We'll get to you in just a moment.  
15 Hang on. I want to make a record about who else is on  
16 board with us here. Looks like Ms. Ching is listening  
17 in. It looks like -- that's it.

18 Okay. All right. Are we ready to go with  
19 Mr. Pearson? I'm not seeing any nos. All right. Please  
20 swear in Mr. Pearson.

21 THE CLERK: You may remain seated,  
22 Mr. Pearson. Raise your right hand. Do you solemnly  
23 swear or affirm that the testimony you are about to give  
24 will be the truth, the whole truth, and nothing but the  
25 truth? If so, please respond by saying I do.

1 THE WITNESS: I do.

2 THE CLERK: Thank you.

3 THE COURT: All right. Mr. Pearson, let's  
4 start with please tell us your full name and then spell  
5 it for us so our court reporter over here in Honolulu  
6 gets it down accurately. Thank you.

7 THE WITNESS: My name is Jeffrey Theodore  
8 Pearson. J-e-f-f-r-e-y T-h-e-o-d-o-r-e P-e-a-r-s-o-n.

9 THE COURT: Thank you. And a couple of ground  
10 rules. Doing this trial over video conference has  
11 presented some challenges. We've been learning as we go.  
12 A few of the things we've learned is that if you speak  
13 maybe a little slower than usual, it seems to come  
14 through better. That's No. 1. No. 2, please try to  
15 project because it may sound clear to you in your room,  
16 but unless it's clear over here in our room, it makes  
17 things very difficult for our court reporter. So please  
18 try to put it out there so it comes through with some  
19 strength behind it. And 3, if some Hawaiian names come  
20 up during your testimony -- and there's no need to spell  
21 the obvious ones like Kailua or Maui or something like  
22 that. But anything that's, you know, a little more  
23 involved and could be misspelled by our court reporter,  
24 please spell it out immediately after you use it. That  
25 will save us having to interrupt you to ask that you do

1 that. All right? Does that all make sense?

2 THE WITNESS: (Witness nodded.)

3 THE COURT: Sorry. You have to answer out  
4 loud.

5 THE WITNESS: Yes, it makes sense.

6 THE COURT: Mr. Rowe?

7 MR. ROWE: Yes, it makes sense, Your Honor.

8 THE COURT: All right. I thought you were  
9 going to add something else. Okay. All right. So we're  
10 going to try it with the mask on. Hopefully it comes  
11 through loud and clear. If not, we may have to take a  
12 break to figure out what to do about that. All right?  
13 But let's go ahead.

14 MR. ROWE: Your Honor, before I get started,  
15 the -- in the pretrial order there was a reference to  
16 using demonstrative aids that were exhibits. My exhibits  
17 M-4, M-5, and M-6, they're charts that are pretty small.  
18 They're not in evidence yet. They're charts with very  
19 small numbers on them. I printed up a large copy just  
20 for the ease of Mr. Pearson to read them. And I just  
21 wanted to know if it would be okay for him to refer to  
22 that instead of the electronic copy. If not, I'm more  
23 than happy to just use the electronic copy if anyone has  
24 any objections.

25 THE COURT: So you're saying you've got larger

1 copies of M-4, M-5 and M-6?

2 MR. ROWE: Correct.

3 THE COURT: And they're physical copies and  
4 you're just asking to let the witness work with those  
5 instead of on the computer screen?

6 MR. ROWE: Yes, Your Honor.

7 THE COURT: And you can represent to the Court  
8 that they are true and accurate copies of -- of those  
9 exhibits?

10 MR. ROWE: Yes, Your Honor.

11 THE COURT: All right. Any objection to the  
12 witness using -- referring to the physical copies? It  
13 might make things easier.

14 I'm not seeing any objection, so yeah, that  
15 will work, Mr. Rowe. Go ahead.

16 MR. ROWE: Thank you, Your Honor.

17

18 JEFFREY PEARSON,

19 Called as a witness by the County,

20 having been first duly sworn,

21 was examined and testified as follows:

22

23 DIRECT EXAMINATION

24 BY MR. ROWE:

25 Q Mr. Pearson, what's your position with the

1 County of Maui?

2 A I'm the director for the Water Supply for the  
3 County of Maui.

4 Q How long?

5 A Since the mayor's inauguration which would be  
6 January of 2019, January 1.

7 Q Okay. And can you give us a little bit of  
8 your educational and professional background?

9 A Well, that might take a while, but I got my  
10 professional engineering degree at the University of  
11 Minnesota in about 1981. I held various positions.  
12 Going backwards I've worked at the Water Commission  
13 recently under the first term of Governor Ige. Prior to  
14 that, I had other positions at the Department of Water  
15 Supply. I was in capital improvement side at the  
16 Department of Water Supply.

17 THE COURT: Okay. Time out. I'm sorry.  
18 You're going a little bit too fast. So I mean, it's  
19 coming through loud and clear, which is great. It's just  
20 a little too fast. So if you can dial it back a little  
21 bit. Thank you.

22 THE WITNESS: Okay. So prior to the capital  
23 improvements work at the Department of Water Supply, I  
24 worked at Maui Land and Pine in the aspects of managing  
25 the water systems and the water -- well water systems and



1 the drinking water systems. And prior to that I was the  
2 deputy director under George Tengan again at the  
3 Department of Water Supply at the County of Maui.

4 BY MR. ROWE:

5 Q And in your position as the director of the  
6 Department of Water Supply for the County of Maui, are  
7 you generally aware of the operation -- the operations of  
8 the County's Upcountry water system?

9 A Yes.

10 Q And can you give us kind of a brief overview  
11 of what the Upcountry system is.

12 A Sure. The Upcountry water system has both  
13 surface water and ground water to provide drinking water  
14 for our customers. The three surface water treatment  
15 plants that serve Upcountry -- I'll spell these --  
16 Piiholo Water Treatment Plant, P-i-i-h-o-l-o. The Olinda  
17 Water Treatment Plant, O-l-i-n-d-a. And the Kamole Water  
18 Treatment Plant, K-a -- you must know that one by now,  
19 but K-a-m-o-l-e. These three surface water treatment  
20 plants provide the majority of the water to Upcountry.

21 We also have wells in Haiku and we have wells  
22 just mauka of the town of Makawao that provide water to  
23 the Upcountry system. That's generally the sources that  
24 provide the water.

25 MR. ROWE: Did you need Makawao or Haiku

1 spelled, Your Honor?

2 THE COURT: No. Thank you.

3 MR. ROWE: Okay. Thank you.

4 BY MR. ROWE:

5 Q And so the -- the water treatment plants you  
6 mentioned, those are -- those use treated surface water;  
7 is that correct?

8 A That's correct.

9 Q Okay. And as far as the Kamole facility, what  
10 is the source of water for the Kamole facility?

11 A The water is transported to the Kamole  
12 Treatment Plant through the Waialoa Ditch. And the  
13 source of that water are the diversions that are on the  
14 East Maui Irrigation System, that management, all the way  
15 to -- what's that one? -- Makapipi, M-a-k-a-p-i-p-i. I  
16 think that's the furthest east diversion. And there's  
17 many diversions that provide water that get into the  
18 ditch that end up in the Waialoa Ditch that feeds the  
19 Kamole Treatment Plant.

20 Q And does the County receive any other water  
21 from the Waialoa Ditch other than the one that you --  
22 Kamole?

23 A Yes. The water will pass Kamole Treatment  
24 Plant and go further on through that ditch to a reservoir  
25 that is under the management of EMI, East Maui

1 Irrigation. And then that water is pumped to we call it  
2 the Kula Ag Park. That water is not treated. It's  
3 non-potable water that is used for agricultural purposes.

4 Q And as part of your duties as the director of  
5 the Department of Water Supply, do you monitor the amount  
6 of water production at the various water treatment  
7 facilities?

8 A Yes, definitely.

9 Q How do you monitor it?

10 A I get daily and monthly information on what's  
11 treated at each one of the treatment plants.

12 Q And how is that information presented to you?

13 A Well, the month one you're going to enter into  
14 evidence later, but the daily one I'm provided -- well,  
15 through the email information is provided and put in  
16 table form or -- or like a one-page descriptive form  
17 showing the production at each of the treatment plants.

18 Q And who puts in that information?

19 A Staff at our base yard.

20 Q And the staff who puts that in I guess  
21 monitoring the daily production, that's part of their job  
22 description?

23 A Correct. The treatment plant staff monitor  
24 the daily production and they send that information to  
25 another person that provides the data on those forms.

1           Q           And you mentioned that you receive a -- a  
2           monthly report about the various treatment facilities; is  
3           that correct?

4           A           Correct. A variety of reports, a variety of  
5           monthly reports, yes.

6           Q           Okay. And do you regularly review these  
7           reports?

8           A           Of course.

9           Q           And are the -- you mentioned that in the  
10          reports there's production amounts included. Are those  
11          production amounts inputted to the reports at or near the  
12          time that the information is gathered?

13          A           I would assume so. I don't know the specific  
14          efforts that they do to make the monthly report, but the  
15          daily reports I receive, of course I get them before noon  
16          every day.

17          Q           Okay. And so for example, if you had -- if  
18          you got a monthly report that had the information about  
19          production of water for March 2019, when would you expect  
20          that information to have been put into that report?

21          A           Of course it would have been put in during  
22          that month of March. But I would have received that  
23          within a week after they compile the whole monthly  
24          reports.

25          Q           Okay. And are these reports shared with

1 anyone else in the County?

2 A Yes.

3 Q And who are they shared with?

4 A We share 'em with the mayor's office, the  
5 county council gets these monthly reports. And it also  
6 goes to the Board of Water Supply, the advisory board  
7 that is under the Department of Water Supply.

8 Q And are these reports relied on in making  
9 decisions on behalf of the Department of Water Supply?

10 A Yes.

11 Q I'm going to be handing you what's been marked  
12 as Exhibit M-4.

13 And Your Honor, this is one of the charts that  
14 I was inquiring about earlier.

15 THE COURT: Got it.

16 BY MR. ROWE:

17 Q Do you recognize this document?

18 A Yes.

19 Q And can you tell me what this document is.

20 A Well, I'll read you the title. It says Maui  
21 Department of Water Supply 2018 Water Treatment Plant  
22 Facilities -- too fast?

23 Q No. I think Mr. Frankel is going to object to  
24 you reading it off of the document.

25 MR. FRANKEL: I'll give you a pass for that,

1 Caleb.

2 MR. ROWE: Okay. Thank you.

3 BY MR. ROWE:

4 Q And is this one of those types of reports that  
5 you -- that you described, one of the monthly reports you  
6 get about production?

7 A Yes.

8 Q And does this appear to be a true and correct  
9 copy of the Maui Department of Water Supply 2018 Water  
10 Treatment Facilities Production Report for December 2018?

11 A Yes.

12 Q And you mentioned earlier that the  
13 information -- that the information in there is input  
14 near or at the time that the information is gathered?

15 A Yes.

16 MR. ROWE: Your Honor, at this time I'd like  
17 to move Exhibit M-4 into evidence.

18 THE COURT: Mr. Frankel?

19 MR. FRANKEL: Objection, Your Honor.

20 Cumulative based on the exhibits that are already in  
21 evidence, lacks foundation, and actually relevance.

22 THE COURT: Mr. Schulmeister?

23 MR. SCHULMEISTER: I have no objection to the  
24 exhibit.

25 THE COURT: Mr. Wynhoff?

1 MR. WYNHOFF: No objection, Your Honor.

2 THE COURT: All right. The objection's  
3 overruled. M-4 is received over objection.

4 (Exhibit M-4 was received in evidence.)

5 MR. ROWE: Thank you, Your Honor.

6 BY MR. ROWE:

7 Q Looking at this chart, is there a -- is there  
8 a section about the Kamole Water Treatment Facility?

9 A Yes.

10 Q And looking at this document, can you  
11 identify -- well, first off, this is -- the numbers in  
12 here are in thousands of gallons. Is that correct?

13 A Yes.

14 Q Okay. So in looking at the Kamole Water  
15 Treatment Facility at the average daily production for  
16 2018, what month appears to have the highest rate?

17 A January.

18 Q Okay. About how much water is produced in  
19 that month?

20 A Almost 50 million gallons.

21 Q And how about the average per day for that  
22 month?

23 A The average daily production would be 1.9  
24 million gallons a day.

25 Q Okay. What about the lowest level of

1 production?

2 A Looks like April with production of about  
3 300 -- 280,000 gallons per day.

4 MR. ROWE: Thank you, Your Honor. Your Honor,  
5 I would now like to hand the witness what's been marked  
6 as County's Exhibit M-5.

7 THE COURT: Okay. I got it. Thank you.

8 BY MR. ROWE:

9 Q Do you recognize this document?

10 A Yes.

11 Q And does this appear to be a true and correct  
12 copy of the Maui Department of Water Supply 2019 Water  
13 Treatment Facilities Production Report for December 2019?

14 A Yes.

15 Q And again, this is the type of report you were  
16 referring to earlier where the information was input near  
17 or around the time it was collected?

18 A Yes.

19 MR. ROWE: Thank you. At this time, Your  
20 Honor, I'd like to move Exhibit M-5 into evidence.

21 THE COURT: All right. Mr. Frankel?

22 MR. FRANKEL: I see the inevitable, Your  
23 Honor. No objection.

24 THE COURT: You're entitled to make your  
25 record. I don't take it personally. All right. No



1 objection.

2 Mr. Schulmeister?

3 MR. SCHULMEISTER: No objection.

4 THE COURT: Mr. Wynhoff?

5 MR. WYNHOFF: No objection, Your Honor.

6 THE COURT: All right. M-5 is received.

7 (Exhibit M-5 was received in evidence.)

8 MR. ROWE: Thank you, Your Honor.

9 BY MR. FRANKEL:

10 Q Again, can you look at the column for the --  
11 for the areas -- for the Kamole Weir Treatment Plant?

12 A Yes.

13 Q Okay. And can you tell us what months in 2019  
14 according to this document the most water was produced  
15 and how much that was?

16 A Let's see. It looks like the month of June.  
17 An average daily production of the month of June of 3.56  
18 million gallons a day.

19 Q Okay. What about the lowest month?

20 A Looks like December. Again about 0.28 million  
21 gallons a day or 280,000 gallons per day.

22 Q Thank you.

23 And Your Honor, I'm now going to hand the  
24 witness a copy of the Exhibit M-6.

25 THE COURT: All right. Thank you. I have it.

1 BY MR. ROWE:

2 Q Mr. Pearson, do you recognize this document?

3 A Yes.

4 Q And does this appear to be a true and correct  
5 copy of the Maui Department of Water Supply 2020 Water  
6 Treatment Facilities Production Report for June 2020?

7 A Yes.

8 Q And again, is this one of the reports you were  
9 describing earlier, where the information is input at or  
10 near the time that it's collected?

11 A Yes.

12 MR. ROWE: Your Honor, at this time I would  
13 like to move in exhibit into evidence. Exhibit M-6.

14 THE COURT: Mr. Frankel?

15 MR. FRANKEL: No objection, Your Honor.

16 THE COURT: All right. Mr. Schulmeister?

17 MR. SCHULMEISTER: No objection.

18 THE COURT: Mr. Wynhoff.

19 MR. WYNHOFF: No objection, Your Honor.

20 THE COURT: Okay. M-6 is received.

21 (Exhibit M-6 was received in evidence.)

22 MR. ROWE: Thank you, Your Honor.

23 BY MR. ROWE:

24 Q So again looking at the portion for the Kamole  
25 Weir Water Treatment Facility, can you identify what

1 months the most amount of water was produced?

2 A The most amounts up to this report is only  
3 through June of course, 'cause it's 2020. We haven't  
4 received the July data as of yet on this report. So June  
5 has the most water, 2.64 million gallons a day.

6 Q And what about the --

7 A The least would be April, which is about  
8 900,000 gallons per day or 0.9 million gallons per day.

9 Q Okay. Thank you. And so in reviewing these  
10 reports, would you agree that it appears that between  
11 2018 and 2020, average daily production went from about  
12 4.8 to 2.56 million gallons a day?

13 A Yeah. Based on the information in these  
14 reports, yes.

15 Q And do you believe that information to be an  
16 accurate representation of what's actually produced?

17 A Yes. I think it's accurate.

18 Q Okay.

19 THE COURT: Mr. Rowe, I'm sorry, but -- I'm  
20 sorry, but I might have missed something. But I'm not  
21 quite exactly clear yet on what these numbers are we're  
22 talking about. Is this the amount of water that goes  
23 through the treatment plant? Or what is it?

24 THE WITNESS: Your Honor, this is the amount  
25 of water that is pulled from the Waialoa Ditch and is

1 treated at the Kamole Treatment Plant.

2 THE COURT: Got it.

3 THE WITNESS: It varies.

4 MR. ROWE: Thank you for clarifying, Your  
5 Honor.

6 THE COURT: Thank you.

7 BY MR. ROWE:

8 Q So can you tell us what kind of accounts for  
9 this variance of, you know, you have one very low and one  
10 that was 3.56?

11 A Well, if you want a one-word answer, it would  
12 be weather. But the idea is, Your Honor, that this  
13 treatment plant is at a lower elevation where it accepts  
14 water from the Waialoa Ditch. The other two treatment  
15 plants -- Olinda is at the highest elevation and Piiholo  
16 is a little bit lower elevation.

17 When those treatment plants have adequate  
18 water from weather, then we will do our best to not run  
19 Kamole Treatment Plant because it costs money to pump  
20 water uphill. So at times -- you don't see the breakdown  
21 of a monthly report here, or maybe you have one. But  
22 there are days -- and the more the merrier for me that we  
23 do not pump up from the Kamole Treatment Plant because we  
24 have adequate water from the other surface water sources  
25 and the ground water sources to meet the needs of

1 Upcountry.

2 Q And so when you say that the water is pumped,  
3 is that because the Kamole facility is lower than the  
4 people who it's distributed to?

5 A Correct. The Kamole facility is in the  
6 elevation of approximately 1,200 feet elevation. I think  
7 Downtown Makawao is about 1,500 feet elevation, and  
8 Makawao is part of the service area for Kamole.

9 Q So that would explain the low end. Can you  
10 explain the high end, why there would be months where  
11 there would be more water used?

12 A Again, the answer is weather. You know, if it  
13 rains a lot, then we have reservoirs that will be filled.  
14 We have a hundred million gallon reservoirs that's  
15 available at the Olinda Treatment Plant for raw water.  
16 We have a 59 gallon reservoir that provides raw water to  
17 the Piiholo Treatment Plant. And of course if we treat  
18 water at those treatment plants, we gravity flow that  
19 water into our system; therefore, it's going to be a much  
20 lower operating cost.

21 Q So is it fair to say that the Kamole facility  
22 sort of acts as a backup source for the Upcountry system?

23 A Well, yes, you can say backup, but it's  
24 crucial backup. But yes, backup.

25 Q And that's because when there's low flow

1 conditions, it needs to service more areas; correct?

2 A There's low flow conditions, it needs -- when  
3 there's low flow conditions, there's a higher chance that  
4 water will be available in the Waialoa Ditch and,  
5 therefore, we can use that water to pump up to service  
6 the areas that would be serviced by Piiholo and Olinda.  
7 So I guess yes.

8 Q And are you aware of how current use of water  
9 at the Kamole Weir Treatment Facility differs from I  
10 guess five or ten years ago?

11 A We've improved the treatment at Kamole so we  
12 have a -- quite a reliable amount of treatment that can  
13 come out of Kamole. About 6 million gallons per day.

14 Q I guess what I'm more asking is, do you -- are  
15 you aware of whether or not there's more or less water  
16 being used now than there used to be at Kamole or  
17 produced at Kamole?

18 A Well, we can look at the charts and do  
19 evaluations, but it seems to me that there's -- I've only  
20 been here for a year and a half, but I think there's  
21 probably more water that's being used than less, but  
22 that's a conjecture.

23 MR. ROWE: Okay. Can I please have J-14 given  
24 to the witness.

25 BY MR. ROWE:

1 Q And I'd like the witness to refer to page 234.  
2 Could you?

3 MR. WYNHOFF: May we know if that's the Bates  
4 stamp or the other one?

5 MR. ROWE: That's the Bates stamp, the Exhibit  
6 page number, not the report page number. 234.

7 BY MR. ROWE:

8 Q And can you look at paragraph 801?

9 A Okay.

10 Q And you see it says Kamole Weir?

11 A Yes.

12 Q And it says average production -- what is that  
13 figure?

14 A Average production is 3.6 million gallons a  
15 day.

16 Q So with that knowledge from what was  
17 determined by the Commission on Water Resources  
18 Management, do you now have a better idea whether more or  
19 less is now used?

20 A It appears that less water is being treated at  
21 Kamole.

22 Q Thank you. What could you attribute this  
23 lowering of usage at Kamole Weir to?

24 A Within our system, the Piiholo Treatment Plant  
25 has been upgraded and more efficient. That has a

1 capacity -- what does it say? Does it say here? It says  
2 here it has a capacity of 5 million gallons a day.

3 What is the date of this? 2018?

4 Q I'm not sure. That's what the --

5 A My point is that from my knowledge, the  
6 Piiholo Treatment Plant has a capacity that's greater  
7 than 5 million gallons a day now. So there could be more  
8 water treated there. We have worked on conservation  
9 efforts to try to have the customers reduce water use.  
10 We've installed Pookela Well, which can provide a million  
11 gallons a day when there's low rainfall. So that would  
12 be a few of the reasons.

13 THE COURT REPORTER: Can he spell that?  
14 Polokelo Well?

15 THE COURT: Hang on. Polokelo?

16 MR. ROWE: Spell it.

17 THE WITNESS: I apologize. Pookela,  
18 p-o-o-k-e-l-a. I apologize.

19 THE COURT: No. That's okay. Thank you.

20 BY MR. ROWE:

21 Q You mentioned the reservoirs at the Olinda and  
22 Piiholo Water Treatment Plant; is that correct?

23 A Correct.

24 Q And have those been recently relined?

25 A Excuse me. I failed to remember that. Yes.



1 The system that feeds the Olinda Treatment Plant has been  
2 much improved. We have a new -- what do you call --  
3 ditch system or a new rectangular system that takes the  
4 water from the diversions that eventually brings that to  
5 the Olinda Treatment Plant. That has been upgraded to  
6 eliminate most of the losses.

7 There's also two 15 million gallon reservoirs  
8 that are before the 100 million gallon. There's two 15  
9 million gallon reservoirs. And those two 15 million  
10 gallon reservoirs has also been relined to eliminate loss  
11 in those reservoirs.

12 Q So that would also -- would you consider those  
13 to also be increases in efficiency at those plants?

14 A Definite increase the efficiency for the water  
15 that goes to the Olinda Treatment Plant.

16 THE COURT: Try to slow down just a little bit  
17 please.

18 MR. ROWE: Okay.

19 BY MR. ROWE:

20 Q When you were talking about the intake system,  
21 Olinda, I believe, is that the Waikamoi Flume?

22 W-a-i-k-a-m-o-i. Flume, f-l-u-m-e.

23 A That's not Hawaiian.

24 Q I know, but it's a weird word.

25 A Yes.

1 Q Okay. And we talked a little bit about the  
2 range. Would the ability of the Department to provide  
3 water to Upcountry Maui be harmed if daily access at  
4 Kamole was limited?

5 A Yes.

6 Q Why is that?

7 A Well, I think I've discussed this. But during  
8 periods of low rainfall and higher water use with our  
9 customers Upcountry, we rely heavily on Kamole with a  
10 better reliable source of water, raw water, to provide  
11 water to our customers. So if Kamole was not in service  
12 or not in use during those dry periods and low flow  
13 periods, we would be in dire straits.

14 Q So does that mean that the County should have  
15 some sort of flexibility in the amount of water that's  
16 not necessarily reflective of the yearly average, for  
17 example, at Kamole?

18 A Yeah. Yes.

19 MR. ROWE: Okay. Your Honor, I'm done with my  
20 direct examination of this witness.

21 THE COURT: All right. Thank you. Let's go  
22 with Mr. Schulmeister next.

23

24 CROSS-EXAMINATION

25 BY MR. SCHULMEISTER:

1           Q           Mr. Pearson, is the Department of Water Supply  
2           or the County of Maui a public trustee in your  
3           understanding regarding its development, management, and  
4           delivery of water to its customers?

5                   MR. FRANKEL:  Objection.

6                   THE WITNESS:  Yes.

7                   THE COURT:  Sorry.  Basis?

8                   MR. FRANKEL:  Legal conclusion, lacks  
9           foundation.

10                  THE COURT:  Sustained.  But I'm going to  
11           accept the answer just to get his understanding of it.

12           BY MR. SCHULMEISTER:

13           Q           Okay.  And you mentioned that the -- you  
14           talked a lot about Kamole Weir.  But earlier in your  
15           testimony you also mentioned the Kula Ag Park?  You  
16           recall that?

17           A           Yes.

18           Q           Now, could you describe the use of water from  
19           the Waialoa Ditch at the Kula Ag Park?

20                   MR. FRANKEL:  Objection.  Lacks foundation.

21                   THE COURT:  I think it's a foundation that's  
22           going to be easily laid, but technically you're right.  
23           Lay a little more foundation please.

24           BY MR. SCHULMEISTER:

25           Q           Do you know what the Kula Ag Park is?

1           A           Yes.

2           Q           What is the Kula Ag Park?

3           A           Kula Ag Park is an agricultural subdivision  
4 provided by the County of Maui that allows farmers to  
5 farm on whatever subdivision areas are that they lease.  
6 I think they lease. And the water is provided to that  
7 Kula Ag Park through the Waialoa Ditch.

8           Q           And is that done by -- does the Department of  
9 Water Supply have a role in that?

10          A           Yes.

11          Q           What is the role of the Department of Water  
12 Supply?

13          A           Department of Water Supply installs the meters  
14 to each one of these subdivided lots, and they read those  
15 meters and then bill the lessee of the lot at ag rates.

16          Q           When you say ag rates, are there different  
17 rates for ag water meters versus other kinds of water  
18 meters?

19          A           Yes.

20          Q           And so the -- so the County is basically  
21 making this water available to the tenants or farmers in  
22 the ag park and then charging them for providing that  
23 water; is that correct?

24          A           You say make available. Of course the water  
25 comes through the Waialoa Ditch, and then from there the

1 County of Maui will pump it from a reservoir to the ag  
2 park, so then we make it available. Yes.

3 Q And the -- the ability of the County of Maui  
4 to be receiving the water from the Waialoa Ditch, that's  
5 through an agreement with East Maui Irrigation Company?

6 A Yes.

7 Q Okay. But as far as the distribution of the  
8 water after it is taken to the ag or while it's in the  
9 process of taking it to the ag park, that is controlled  
10 by the Department of Water Supply; is that right?

11 A Yes.

12 Q Now, does the Department of Water Supply  
13 require all the tenants of the ag park to justify the  
14 amount of water they're using for agriculture?

15 A Because it's an agricultural park, we're  
16 already deeming it agricultural water use. So what  
17 really limits the amount of water they can use there  
18 would be the meter size.

19 Q Okay. But I mean, does the Department of  
20 Water Supply, for example, require like a monthly or  
21 quarterly report from every farmer about how much water  
22 is being used, what the crop is being used for, what the  
23 crop duty is for each crop, how much is being used per  
24 acre, how much seepage loss there is, things like that?

25 A As far as I know, no. The only thing

1 Department of Water Supply would be of course aware of is  
2 the amount of water that goes through the meter from  
3 which we bill that meter user.

4 Q Okay. So -- so that's the only monitoring of  
5 usage, is just seeing what the meter amount is; is that  
6 correct?

7 A I'm going to say only David, because OED,  
8 Office of Economic Development, they do the management of  
9 the Kula Ag Park. We just do the management of the  
10 water. So they may have other information that I'm not  
11 aware of. I just stick to the water and the water  
12 meters.

13 Q Okay. Now, does the Department of Water  
14 Supply have ag meters for other customers besides the  
15 ones in the Kula Ag Park?

16 MR. FRANKEL: Objection. Beyond the scope.

17 THE COURT: Beyond the scope of what?

18 MR. FRANKEL: Direct.

19 THE COURT: Oh. Sorry. I'll allow it. Go  
20 ahead.

21 THE WITNESS: Judge, should I be pausing a  
22 little bit more to allow for objections?

23 THE COURT: You can, you can. Sure.

24 THE WITNESS: Okay. I'm trying to, you know,  
25 behave here.

1 THE COURT: You're doing fine. Believe me.  
2 You're almost a model witness in terms of your procedure.

3 THE WITNESS: I watch a lot of *Law and Order*.

4 BY MR. SCHULMEISTER:

5 Q The answer is yes?

6 A The answer is yes, Your Honor.

7 THE COURT: Thank you.

8 BY MR. SCHULMEISTER:

9 Q Okay. And does the Department of Water Supply  
10 to the extent it provides water to other agricultural  
11 customers on Maui require those customers to monthly or  
12 quarterly account for the water usage in terms of the  
13 crops they're using it on, the amount required for each  
14 crop, the gallons per day, the acreage planted, seepage  
15 losses, and things of that nature?

16 MR. FRANKEL: Objection, Your Honor. Far  
17 beyond the scope, and I believe it's also actually  
18 irrelevant.

19 THE COURT: Understood. And you know,  
20 typically your objection as to scope is well founded.  
21 But my usual practice, just so you know this isn't just  
22 for this trial, but in any bench trial, I generally allow  
23 a lot of scope on that because it just saves us having to  
24 go around and around and around, giving all the attorneys  
25 additional sessions with the witness. This tends to be

1 more efficient in my experience. And there's no  
2 prejudice. And that's why I allow it, for what that's  
3 worth.

4 So Mr. Pearson, you may go ahead and answer.

5 THE WITNESS: Thank you, Your Honor. Our  
6 fiscal department prior to a person requesting ag --  
7 agricultural rates for their water meter, they have to  
8 provide an agricultural plan. The agricultural plan will  
9 discuss what they're growing, showing the acreage that  
10 they have for growing their crops. I don't think it goes  
11 into the depth that Mr. Schulmeister discussed. Again,  
12 of course, we have the water meter that will monitor the  
13 water use. But I don't think the ag requirements are as  
14 detailed as Mr. Schulmeister asked.

15 BY MR. SCHULMEISTER:

16 Q Okay. Now, the -- the process you just  
17 described for obtaining an ag water meter you said  
18 involves the submission of a plan. But after the ag  
19 meter is granted, to your knowledge, does the Department  
20 of Water Supply require monthly or quarterly or annual  
21 reporting on the types of issues that I previously  
22 inquired about?

23 A To my knowledge, no.

24 Q Okay. And I think you mentioned in your  
25 background that you're a former deputy director of the



1 Commission on Water Resource Management for the State of  
2 Hawaii; is that correct?

3 A Correct.

4 Q And so with regard to the Commission on Water  
5 Resource Management, are you familiar with what a  
6 designated water management area is?

7 A Yes.

8 Q And in the designated water management areas,  
9 in order to use water, the Commission on Water Resource  
10 Management has to provide a water use permit; is that  
11 correct?

12 MR. FRANKEL: Objection, Your Honor. Calling  
13 for legal conclusion, not -- this kind of information  
14 doesn't need to be solicited from this witness.

15 THE COURT: Can you make an offer of proof,  
16 Mr. Schulmeister, on where you're going with this?

17 MR. SCHULMEISTER: Yes. What I'm exploring is  
18 what this is going to get back to is the designated water  
19 management on Maui and a water use permit that I believe  
20 the Department of Water Supply has. And I'm going to  
21 explore the same questions in terms of the kinds of water  
22 use reporting that -- not only that the users have to  
23 make to Department of Water Supply, if any, but also that  
24 the Department of Water Supply has to make to the Water  
25 Commission.

1                   And the reason that this is relevant is  
2           because the Sierra Club is arguing without any evidence  
3           that the Board of Land and Natural Resources was under a  
4           public trust duty to require extraordinarily detailed  
5           information from Mahi Pono and EMI about its water use.  
6           But it's offering no testimony as to what the standard of  
7           care is of a public trustee in monitoring water usage  
8           from customers.

9                   And so Mr. Pearson is obviously competent and  
10          has the background to talk about what the practice is of  
11          both the Department of Water Supply with regard to  
12          supplying water to its agricultural customers and also  
13          what the Department of Water Supply does in terms of  
14          reporting its use from its service water use permit in  
15          Iao designated water management area to its customers.

16                   THE COURT: That sounds like information we'll  
17          be getting into with Chair Case. I don't want to do it  
18          twice.

19                   MR. SCHULMEISTER: Well, I think Mr. Pearson  
20          has more detailed knowledge of what the County is doing  
21          than Ms. Case would.

22                   THE COURT: Mr. Frankel, you want to be heard?

23                   MR. FRANKEL: Yes, Your Honor. I believe it's  
24          irrelevant. I think we can go back to -- I may be  
25          remembering my cases wrong -- *T. J. Hooper*, Judge Learned

1 Hand. And you can't point to the activities of others to  
2 excuse your own misconduct. Just because others are  
3 engaged in misconduct doesn't mean that your own  
4 misconduct becomes excusable.

5 It's just not -- it's -- it's not the type of  
6 evidence that is relevant here. And the standard by  
7 which we measure whether a trustee breached its duty is a  
8 standard that the Court applies. You don't look at  
9 other -- which other agencies may be engaged in  
10 misconduct.

11 MR. SCHULMEISTER: Just to be clear, Your  
12 Honor, I am not suggesting that this is misconduct. What  
13 I am suggesting is that this is evidence of what the  
14 standard of care is, which is from practice of public  
15 trustees who are actually doing this type of operation.  
16 And it is not a purely legal question what the standard  
17 of care is. The standard of care -- and I'm sure there  
18 is abundant case law on this -- is a question -- is a  
19 mixed question of law and fact. And significant -- the  
20 factual component of it is informed by what the practice  
21 is of other trustees.

22 THE COURT: But isn't -- aren't you offering  
23 this for CWRM, not for BLNR?

24 MR. SCHULMEISTER: No. I'm -- you have to --  
25 the plaintiff has framed its case around an allegation

1 that the Board of Land and Natural Resources has a public  
2 trust obligation to request this type of detailed  
3 information from people to whom it grants a permit. So  
4 the plaintiff has framed this as a public trust  
5 obligation of the Board of Land and Natural Resources.

6 Under the Hawaii Constitution, every -- the  
7 State and every political subdivision of the State is  
8 subject to the public trust duty. So I started this line  
9 of questioning by asking Mr. Pearson whether he agreed  
10 that the Department of Water Supply is a public trustee  
11 in this regard, to which he answered yes. So the  
12 Commission on Water Resource Management is a public  
13 trustee, and I think we've argued they're the ones with  
14 primary jurisdiction of this issue.

15 But what this lawsuit is trying to do is say,  
16 well, that same duty applies to the Board. But they  
17 won't say where the standard of care comes from in terms  
18 of why all this information has to be requested other  
19 than from the desires of the Sierra Club. We moved for  
20 summary judgment on that issue. It was denied. But you  
21 know, we're entitled to establish the standard of care.

22 THE COURT: Okay. I've heard enough. The  
23 objection -- I'm sorry. Go ahead.

24 MR. ROWE: Your Honor, I'm wondering if maybe  
25 I should have the witness leave the room during this

1 discussion.

2 THE COURT: Well, I was thinking about that  
3 too, but I've heard enough and I'm ready to rule. So no  
4 point in doing it now. The objection is sustained. This  
5 is just too far afield given the issues in this case.

6 We don't need the eye rolling,  
7 Mr. Schulmeister. I can see you.

8 Let's take our break. We've been going 50  
9 minutes. Ten-minute break. I'll see you back here at 10  
10 a.m. Thank you. We're in recess.

11 (A recess was taken.)

12 THE COURT: Back on record. Also for the  
13 record, to give a little more detail for the basis for  
14 the Court's ruling on the last question, it's a 403  
15 balancing test. I mean, even if establishing some  
16 standard of care for CWRM data collection is maybe  
17 relevant, I think it's marginal compared to and  
18 outweighed by the time it would take to go down that  
19 potential rabbit hole and the potential confusion when  
20 the real issue before the Court is BLNR's duties. Thank  
21 you.

22 Go ahead, Mr. Schulmeister.

23 MR. SCHULMEISTER: Okay. Your Honor, I  
24 believe I've made our record on that, and I have no  
25 further questions at this time.

1 THE COURT: Thank you.

2 All right. Mr. Wynhoff.

3 MR. WYNHOFF: Thank you, Your Honor.

4

5

CROSS-EXAMINATION

6 BY MR. WYNHOFF:

7 Q Mr. Pearson, in response to the Court's  
8 question, you mentioned where the water comes and goes  
9 into the treatment plant. And maybe it's already in the  
10 record. Where does the water go after it comes out of  
11 the Kamole Treatment Plant?

12 A The water gets treated of course at the Kamole  
13 Treatment Plant to potable water stands. We have a 3  
14 million gallon we call it a clear well where we  
15 chlorinate the water. From that 3 million gallon clear  
16 well, it's pumped to our pump headers, and we have like  
17 450 horse power motors, 600 horse power motors that pump  
18 the water up the mountain. And the first receiving tank  
19 is that same word, Pookela -- the Pookela tank -- it's a  
20 million or a million and a half gallon tank that the  
21 water gets pumped up to.

22 Q Then what happens to it?

23 A Well, then it's distributed into our system,  
24 our water system throughout, and goes to the customers.  
25 If we have other issues that actually have the ability to

1 be pumped higher up the mountain to tenants that are  
2 above that to feed higher elevation systems.

3 Let me back up a little bit. There's three  
4 systems in Upcountry defined by the Department of Health.  
5 There's the Makawao system, which is the lowest  
6 elevation. There's the Lower Kula system and the Upper  
7 Kula system. And the water actually has the ability or  
8 our system has the ability to pump the water from the  
9 Makawao system up to the Lower Kula system and actually  
10 up to the Upper Kula system. Of course, that's a lot of  
11 pumping and we do everything we can to avoid that. But  
12 it -- the water from Kamole can go all the way up to the  
13 Upper Kula system at certain dry times.

14 Q So another way of putting it is who are the  
15 ultimate users of -- you already mentioned Kula Ag Park.  
16 Who else are the ultimate users of the water from Kamole?

17 A Okay. The water that is treated at Kamole to  
18 drinking water standards does not go to the Kula Ag Park.  
19 It's the raw water in the ditch that passes the treatment  
20 plant, staying in the ditch that will feed Kula Ag Park.  
21 The water that is treated at the Kamole Treatment Plant,  
22 as I said, is pumped up to our Upcountry customers. And  
23 that again is augmented -- like you said at the  
24 beginning, there's a few wells here and there in Haiku,  
25 the Pookela Well. But besides that, that water gets

1 pumped to our tanks and the gravity flows out of our  
2 tanks into the system that serves our customers  
3 Upcountry.

4 Q Thank you, Mr. Pearson. I wondered about  
5 whether you -- (indiscernible) -- potable water. So  
6 thank you for anticipating that.

7 That's all of the questions I have, Your  
8 Honor. Thank you.

9 THE COURT: Thank you. Mr. Frankel.

10 MR. FRANKEL: Yes, Your Honor. Thank you.

11

12

CROSS-EXAMINATION

13 BY MR. FRANKEL:

14 Q So Mr. Pearson, you provided some very -- you  
15 were very informative. And I have some questions. If we  
16 need to look at the exhibits, we might need to do that.  
17 So there was a -- you were at the Water Commission when  
18 the 2018 Water Commission decision came out; right?

19 A Yes, I was.

20 Q And you refer -- you were asked about that  
21 Finding of Fact 801 about how much water the County  
22 needed of East Maui water at the Kamole plant. Remember  
23 that?

24 A That's when Caleb showed me the page 234 or  
25 whatever that was. Yes. Yes, I remember that.



1 Q And your testimony is that as of today, the  
2 County is not using as much water, East Maui Irrigation-  
3 delivered water for domestic purposes as it was back  
4 then; right?

5 A It seems so, yes. Correct.

6 Q And that's attributable to a number of new  
7 things that you folks have been working on such as lining  
8 reservoirs; right?

9 A Correct.

10 Q And you did something to make the Waikamoi  
11 Flume more efficient; is that right?

12 A Correct. We actually replaced the Waikamoi  
13 Flume with a better -- better system, better flume.

14 Q And you said the capacity of the Piiholo  
15 Treatment Plant was also enhanced; is that right?

16 A Correct.

17 Q And you dug a new well; is that right?

18 A Yes.

19 Q And so based on all that work, the information  
20 in terms of how much water you need is different today  
21 than it was back in 2018; right?

22 A Yes.

23 MR. ROWE: I'm going to object, Your Honor.  
24 I'm going to object, Your Honor. 2018, according to his  
25 testimony, was before he was director of water supply.

1 So he's not aware of what was reported to the CWRM.

2 THE COURT: Hang on one second. We'll go off  
3 record for a minute.

4 (A discussion was held off the record.)

5 THE COURT: I need to see my screen. I need  
6 to look at the question again. Hang on. The question is  
7 basically, based on all that, the information in terms of  
8 how much water you need is different today than it was  
9 back in 2018.

10 I'm sorry. I had my own objection. When you  
11 say you need, can you specify? Is that just the county  
12 consumer or is there more to it than that?

13 MR. FRANKEL: The county, Department of Water  
14 Supply, for its consumers, yeah.

15 MR. ROWE: And Your Honor, after hearing the  
16 question read back, I'll withdraw my objection.

17 THE COURT: Okay. You can go ahead and  
18 answer, Mr. Pearson.

19 THE WITNESS: The Upcountry system is more  
20 efficient. There's no doubt about that. The word "need"  
21 -- as you read that back, Your Honor, the need for the  
22 Kamole Weir and the water that's at that Kamole Weir is  
23 not just determined by the efficiency of our system.  
24 It's determined by the availability of surface water in  
25 the Upcountry area.

1                   And so when there's no availability of surface  
2                   water due to dryer conditions and weather conditions,  
3                   that need is humongous. So we do need the water. There  
4                   may be more efficiencies, and we can use the water maybe  
5                   less often because of our efficiencies Upcountry. But  
6                   that does not negate the fact that when is there's  
7                   drought and there's no surface water or very little  
8                   available surface water, the need for water from Kamole  
9                   is very important.

10                  BY MR. FRANKEL:

11                  Q            Okay. Thank you. And is it fair to say your  
12                   use of water has generally declined -- the use of East  
13                   Maui Irrigation water has declined in part due to a  
14                   number of these improvements the County of Maui has made  
15                   relatively recently, hasn't it?

16                  A            I would say so, yes.

17                  Q            Thank you. And as far as you know, based on  
18                   your various times that you worked at the County  
19                   Department of Water Supply, the name of which may have  
20                   changed over time, and your work at the Water Commission,  
21                   the County has never used 25 million gallons a day of  
22                   East Maui Irrigation water, has it?

23                               MR. ROWE: I'm going to object, Your Honor.  
24                   There's no scope to that question, so it's beyond the  
25                   witness's knowledge.

1 THE COURT: Yeah. You used the word ever.  
2 That's pretty broad.

3 MR. FRANKEL: Okay.

4 BY MR. FRANKEL:

5 Q So when did you start -- well, okay. So  
6 you're at the Department of Water Supply since 2019,  
7 which is about a year and a half. And then before that,  
8 you were at the Water Commission for approximately four  
9 years. And then before that you were also with the  
10 County Department of Water Supply, which may have had a  
11 different name at a certain point. How many years was  
12 that?

13 A I think I was at the Capital Improvement  
14 Program Section about three and a half years, and I was  
15 with the -- I was a deputy director under George Tengan  
16 for about two and a half years.

17 Q So within the period of your experience and to  
18 the extent you can answer -- and if you don't know, you  
19 don't know -- has the County ever used 25 million gallons  
20 of water per day, of East Maui Irrigation water?

21 A Within my experience, no.

22 Q And in fact, it doesn't have the capacity to  
23 use 25 million gallons a day; right?

24 A Correct. With today's system, yes, that's  
25 correct.

1 Q And again, within the time span of your  
2 experience, the County has not even used 20 million  
3 gallons of water per day; is that right?

4 A Yes, that's correct.

5 Q And the County has not used 15 million gallons  
6 a day during your -- during that time frame in your  
7 experience?

8 A We're clarifying now that the amount of water  
9 you're talking about using is from the Waialoa Ditch?

10 Q Very good. Thank you. Yes.

11 A I would say no, 15 million gallons is probably  
12 not used out of the Waialoa Ditch.

13 Q And let's be clear about this in case there's  
14 any confusion. The County does not receive any water  
15 for -- I should say the Department of Water Supply, to be  
16 even more specific, does not get any water from any of  
17 the ditches lower in elevation than the Waialoa Ditch of  
18 all the ditches that run through the revocable permit  
19 area? Do you know what I mean by the revocable permit  
20 area?

21 A Yes, I do. I know what you mean by the  
22 revocable permit area.

23 Q And is the County getting any water from any  
24 of those ditches below the Waialoa Ditch?

25 A Below meaning lower elevation than the Waialoa

1 Ditch?

2 Q Yes.

3 A No. No.

4 Q Okay. So if for example, the Court were to  
5 order no more water -- I don't even know if this is on  
6 the table. But if the Court were to order no more water  
7 to be diverted from any of the diversion ditches below  
8 the Waialoa Ditch, would that have any impact on the  
9 County of Maui Department of Water Supply?

10 A It's hard for me to answer that because I  
11 don't manage the EMI system and I don't know what goes  
12 where or how it gets there.

13 Q Okay. That's fair. That's fair. But again,  
14 you guys don't get any water from the ditches that are  
15 lower in elevation than the Waialoa Ditch; right?

16 A That's correct.

17 Q And given your background with the Water  
18 Commission and your familiarity with the Water  
19 Commission's decision and your familiarity with how much  
20 water the County gets, it's a relatively small percentage  
21 of the water that's taken out of East Maui and the East  
22 Maui Irrigation ditch system that actually gets used by  
23 the County; right?

24 MR. ROWE: I'm going to object, Your Honor.  
25 Lack of foundation as to how much water is used.

1 THE COURT: Sustained. I also really don't  
2 know what you mean by relatively small percentage.

3 BY MR. FRANKEL:

4 Q Well, so Mr. Pearson, you're familiar with the  
5 Water Commission's 2018 decision; right?

6 A I am trying to say I was at the Commission and  
7 I saved the darned pen that the commissioners used to  
8 sign that decision and order.

9 Q Did you help draft it in any way?

10 A No.

11 Q Okay. But you've read the decision; right?

12 A Oh, yes.

13 Q Okay. So does the County of Maui or has the  
14 County of Maui been using less than 10 percent of the  
15 water that flows through the East Maui Irrigation ditch  
16 system?

17 MR. ROWE: Your Honor, I'm going to object as  
18 to lack of foundation as to how much water is flowing  
19 through the East Maui Irrigation ditch system.

20 THE COURT: Sustained.

21 MR. FRANKEL: That's fine, Your Honor. We can  
22 do it in closing with the documents themselves. I don't  
23 think -- I don't think I have any other questions. Thank  
24 you, Your Honor.

25 THE COURT: Thanks. Back to you, Mr. Rowe.

1 MR. ROWE: I don't think I have any further  
2 questions, Your Honor. Thank you.

3 THE COURT: All right. Thank you.

4 Mr. Schulmeister?

5 MR. SCHULMEISTER: I have nothing further,  
6 Your Honor.

7 THE COURT: Thank you.

8 Mr. Wynhoff?

9 MR. WYNHOFF: Nothing, Your Honor. Thank you,  
10 Mr. Pearson. Nice to see you again.

11 THE WITNESS: Good to see you.

12 THE COURT: Mr. Pearson, your testimony is  
13 finished and you are excused. And thank you for coming  
14 in.

15 THE WITNESS: Thank you. Keep up the good  
16 work.

17 THE COURT: I'm going to assume that was  
18 addressed to all of us.

19 MR. WYNHOFF: I hope so, Your Honor.

20 THE COURT: All right. What's next? Is it  
21 time for Mr. -- is it Strauch? I think I'm  
22 mispronouncing it.

23 MS. GOLDMAN: It's Strauch, Your Honor. I was  
24 recently schooled on that as well.

25 THE COURT: Strauch.



1 MS. GOLDMAN: May we just take a very brief  
2 recess to make sure that the witness is all set up? I  
3 don't believe that he has -- (inaudible) -- from that  
4 office onto the Webex yet.

5 THE COURT: That's fine. We'll take a recess.  
6 Just let everybody know when you're ready to resume.

7 MS. GOLDMAN: Thank you, Your Honor.

8 (A recess was taken.)

9 THE COURT: We are back on record. FTR on?

10 THE CLERK: Yes, it is.

11 THE COURT: I see everybody I'm supposed to  
12 see in my screen. Everyone ready?

13 Mr. Rowe, you have your hand up. Go ahead.

14 MR. ROWE: I just wanted to put on the record  
15 that we rest. But we should go back on the record first.

16 THE COURT: We are on the record.

17 MR. ROWE: Thank you, Your Honor. Just for  
18 the record, the County rests.

19 THE COURT: All right. Thank you.

20 All right. Got it. I see a witness here in  
21 the screen. I believe this must be Mr. Strauch -- is it  
22 Strauch, sir?

23 THE WITNESS: Strauch.

24 THE COURT: Strauch? Got it. All right.  
25 Would you please swear in Mr. Strauch.

1           THE CLERK: You may remain seated and raise  
2 your right hand and I'll swear you in. Do you solemnly  
3 swear or affirm that the testimony you are about to give  
4 will be the truth, the whole truth, and nothing but the  
5 truth? If so, please respond by saying, I do.

6           THE WITNESS: I do.

7           THE CLERK: Thank you.

8           THE COURT: Mr. Strauch, you're coming through  
9 loud and clear, which is great. Thank you for using the  
10 headset. It's a big help to us over here. I'll ask you  
11 to start by saying your full name and then please spell  
12 it for our court reporter. Thank you.

13           THE WITNESS: Ayrton M. Strauch. A-y-r-o-n, M,  
14 S-t-r-a-u-c-h.

15           THE COURT: Thank you, sir. And a couple of  
16 guidelines. We're all kind of new at doing question and  
17 answer remotely over video, so we've learned a few things  
18 over the past two weeks. And one of them is it helps us  
19 a lot if you speak a little slower than usual. It seems  
20 to help with the video connection somehow. Second,  
21 please keep projecting just like you are now. It's  
22 coming through loud and clear, and that's great. Do you  
23 have any questions?

24           THE WITNESS: (Witness shook head.)

25           THE COURT: All right. Thank you. Ready to

1 go.

2 MR. WYNHOFF: Your Honor, this is Bill Wynhoff  
3 off camera. I am very sorry, but we're having a little  
4 technical difficulty. And I think I can be back in a  
5 minute or so, if I might ask the Court's indulgence.

6 THE COURT: That's all right. We'll take a  
7 brief recess. We're off record.

8 (A recess was taken.)

9 THE COURT: We're back on record. All right.  
10 I see everybody I'm supposed to be able to see. So let's  
11 go ahead. I think your --

12 MS. GOLDMAN: Thank you, Your Honor.

13 THE COURT: Okay. Go ahead. No problem.

14 MS. GOLDMAN: Can we do a sound check please.  
15 Just make sure this is okay for the court reporter?

16 THE COURT: We just did one. It started off  
17 bad and then got better.

18 MS. GOLDMAN: Okay. What about that? Is that  
19 any better? Okay. Please stop me if -- okay.

20

21 AYRON M. STRAUCH, Ph.D.,

22 Called as a witness by the State,

23 having been first duly sworn,

24 was examined and testified as follows:

25

## DIRECT EXAMINATION

1

2 BY MS. GOLDMAN:

3 Q Dr. Strauch, could you pronounce your last  
4 name?

5 A Strauch.

6 Q Dr. Strauch, could you do a sound check  
7 please?

8 A This is me. Do you hear me loud and clear?  
9 Okay.

10 Q Okay. Thank you.

11 Has the witness been sworn in?

12 THE COURT: Yes.

13 BY MS. GOLDMAN:

14 Q Okay. Excuse me. All right.

15 So Ayrton or Dr. Strauch.

16 THE COURT: Wait a minute. Time out. Sorry.

17 We weren't unanimous, but now we are.

18 Sorry, Ms. Goldman. Go ahead.

19 MS. GOLDMAN: No problem.

20 BY MS. GOLDMAN:

21 Q Doctor, you know why you're here today; right?

22 A Yes.

23 Q And are you aware of this -- of this legal  
24 case currently pending?

25 A Yes. I testified in front of the Board in

1 2018, when the initial revocable permit was -- came up.

2 Q Okay. And let's see. What is your -- in what  
3 capacity did you testify before the Board?

4 A As a hydrologist with the Commission on Water  
5 Resource Management charged with protecting stream  
6 resources.

7 Q Okay. So let's see. Let's talk about what's  
8 a hydrologist. Could you tell us?

9 A Somebody who studies water.

10 Q Okay. And tell us about your educational  
11 background that allows you to do this.

12 A I have a Ph.D. from Tufts University. I took  
13 courses and studied Interdisciplinary Water Resource  
14 Management and Ecology and Hydrological Sciences. I took  
15 a postdoc, or as the University of Hawaii title states, a  
16 junior researcher position here in Hawaii studying  
17 climate change impacts to fresh water ecosystems. And  
18 that incorporated a lot of hydrological sciences as well  
19 as ecological sciences.

20 Q So tell me, what year did you graduate or did  
21 you earn your Ph.D.?

22 A 2010.

23 Q And the postdoc studies that you were doing,  
24 how long did that last for?

25 A Three and a half years.

1 Q So it ended in what year?

2 A 2014.

3 Q Okay. And what did you do after that?

4 A I took a position with the Commission on Water  
5 Resource Management.

6 Q And what is your title at the Commission on  
7 Water Resource Management? And for the record, I believe  
8 that we will be referring to it either as the Commission  
9 or as CWRM, which is C-W-R-M, the acronym for the name.

10 A Hydrologist.

11 Q Okay. And what are some of your roles and  
12 duties as a hydrologist with CWRM?

13 A I'm in the Instream Use Protection Section of  
14 the Stream Protection and Management Branch. My duties  
15 involve establishing instream flow stands and interim  
16 instream flow standards, monitoring stream resources, and  
17 collaborating across agencies to gather information to  
18 support decisions that the Commission makes.

19 Q Okay. And you mentioned IIFS. Could you  
20 please just very briefly remind everyone what that is.

21 A An IIFS or interim instream flow standard is  
22 the amount of water that must remain in the stream to  
23 protect instream values as defined by the Water Code,  
24 State Water Code HRS 174C.

25 Q And are you -- are you able to list what those

1 values are?

2 A So the value -- the instream values that we  
3 focus on include things like fresh water habitat,  
4 ecosystem services, recreational values.

5 THE COURT: Slow down.

6 THE WITNESS: Sorry.

7 THE COURT: That's all right. Try again.

8 THE WITNESS: I'll start over. Fresh water  
9 habitat, ecosystem services, recreational values,  
10 aesthetic values, traditional and customary practices,  
11 instream hydropower, navigation, and the conveyance of  
12 water.

13 BY MS. GOLDMAN:

14 Q Okay. And so how -- just connect the dots for  
15 us. In establishing or studying an IIFS, which is one of  
16 your job duties, how do these values -- how do these  
17 values come into your determination of what the IIFS  
18 should be?

19 MR. FRANKEL: Objection. Assumes facts not in  
20 evidence regarding determinations.

21 THE COURT: I mean, the question is how do  
22 these values come into your determination of what the  
23 IIFS should be.

24 MR. FRANKEL: Oh, should be. I'm sorry. I  
25 didn't hear the should be. That's okay.

1 THE COURT: You may answer.

2 THE WITNESS: We use information from a  
3 variety of resources, things like the DAR Atlas of  
4 Hawaiian Watersheds and Aquatic Resources, the Hawaii  
5 Stream Assessment, various USGS studies conducted on the  
6 hydrology and ecology of Hawaiian streams, private  
7 studies, other agency studies, EIS's, research from the  
8 university and other agencies. We try and gather the  
9 best information available to support the Commission's  
10 decision.

11 BY MS. GOLDMAN:

12 Q Okay. And let's just go back to this and  
13 discuss this more. But I'd like to talk about your  
14 familiarity with the East Maui area generally and  
15 specifically with the East Maui licensed area at issue in  
16 this case. When I say that, are you aware of the area  
17 that I'm talking about?

18 A I am.

19 Q Okay. Have you ever been there?

20 A Quite a lot, yes.

21 Q Okay. And have you ever been there for work?

22 A Yes.

23 Q Okay. What kind of work have you done on --  
24 in East Maui?

25 A So I've studied the hydrology and ecology of



1 most -- many of these streams that are of interest. The  
2 Commission -- prior to my position -- prior to me taking  
3 a position with the Commission, interim instream flow  
4 standards were established at five locations in East Maui  
5 in 2008 and then another six locations I believe in 2010.

6 The Commission worked with the U.S. Geological  
7 Survey to establish monitoring stations at that time.  
8 And it was my -- it has been my job to maintain these  
9 monitoring stations to monitor the hydrology of these  
10 streams to verify that the interim instream flow  
11 standards are being met.

12 In my capacity as a junior researcher at the  
13 University of Hawaii, I also studied the ecology of many  
14 of these streams. That includes snorkel surveys and  
15 seine net surveys of native biota classifying stream  
16 habitat as well as the background information studying  
17 all the literature that has been, you know, published  
18 about these streams.

19 Q And in your current role in the Instream  
20 Stream Protection Unit?

21 A Instream Protection Section.

22 Q Section. Thank you. In that capacity, how  
23 many hours of field work do you think you've done in East  
24 Maui in this licensed area?

25 A Rough estimate, probably in the range of 1,200

1 to 1,600 hours.

2 Q Okay. And that would be since 2014?

3 A Yeah.

4 Q So on average how many days a year do you  
5 spend on East Maui, except --

6 A About 20.

7 Q Okay. And when is the last time you were  
8 there?

9 A Last week.

10 Q Okay. And when you were there last week, what  
11 were you doing?

12 A I was measuring streamflow and doing diversion  
13 verification.

14 Q Okay. And although this might seem a tedious  
15 exercise, I believe it is important to lay foundation for  
16 the remainder of your testimony today. I'd like to ask  
17 you about which streams you've been to in East Maui. Go  
18 down a list and just ask you whether you've personally  
19 been there.

20 A Okay.

21 Q Okay. The first one is called Honopou Stream.  
22 That's H-o-n-o-p-o-u. That's Hydrologic Unit No. 6034.

23 A Yes.

24 Q Okay. When is the last time you went there?

25 A Mid-July.

1 Q Okay. How many times do you think you've been  
2 to Hanapou Stream?

3 A Probably -- for field work or for like  
4 official site visits that involve, you know, not me doing  
5 field work?

6 Q How about field work.

7 A Let's say 60 times for field work and another  
8 dozen times for non data collection related site visits.

9 Q Okay. And are you aware of what the -- was  
10 this stream once a subject of the contested case that  
11 resulted in the 2018 decision and order by CWRM?

12 A Yes.

13 Q And was there -- was it given a new IIFS from  
14 the decision?

15 A The Commission decided to fully restore the  
16 stream, and in that case the IIFS was not a quantifiable  
17 number. It was to be the natural flow --  
18 (indiscernible).

19 Q Okay. We'll return to this, what that means  
20 to fully restore a stream. But let's just slow down and  
21 just get an inventory of your personal experience at each  
22 of these places.

23 So the next stream is Hoolawa Stream. That's  
24 H-o-o-l-a-w-a. Hydrologic Unit No. 6035. Have you been  
25 there?

1 A Yes.

2 Q How many times?

3 A Maybe a dozen times.

4 Q Okay. Were these in your -- in your capacity  
5 for work or pleasure or --

6 A Work.

7 Q Okay. When you visited Hoolawa, did that also  
8 include its tributaries -- Hoolawa ili, that's Hoolawa  
9 with i-l-i or Hoolawa nui, n-u-i, tributaries?

10 A Yes.

11 Q And have you visited any diversions in person  
12 on that --

13 A Yes.

14 Q Okay. And was that stream -- what is the  
15 current IIFS for that stream?

16 A The status quo from the Hawaii Administrative  
17 Rules established in 1988.

18 Q And what is -- what is the status quo? Do  
19 you -- can you just explain that a little further for us.

20 A It's the amount of water that was flowing on  
21 the effective date in 1988.

22 Q Okay. Okay. Let's move on to Mokupapa  
23 Stream. That's M-o-k-u-p-a-p-a Stream. That's  
24 Hydrologic Unit No. 6035 also. Have you ever been there?

25 A No.

1 Q No? Okay. Have you ever looked at any data  
2 from there?

3 A Yes.

4 Q Okay. Have you ever seen a photograph of any  
5 of the diversions there?

6 A Yes.

7 Q We'll come back to -- we'll come back to that  
8 one. But okay. Let's move on to the next one. That's  
9 Waipio Stream. W-a-i-p-i-o. Hydrologic Unit No. 6036.

10 MR. SCHULMEISTER: Excuse me. Could I just  
11 ask some foundation laid about what the hydrologic unit  
12 numbers are in your questions? Because I don't think  
13 we've had testimony on that.

14 MS. GOLDMAN: Thank you for reminding us. At  
15 this point I just associate.

16 BY MS. GOLDMAN:

17 Q Could you explain that please, Ayron. What's  
18 the hydrologic unit number?

19 A So the Commission manages resources by  
20 hydrologic unit, and that is because the State of Hawaii  
21 has too many watersheds that are either too small to be  
22 managed individually or are a part of other watersheds.  
23 And so a hydrologic unit is somewhat similar to a  
24 watershed, but it often incorporates minor neighboring  
25 watersheds or intermittent or ephemeral streams of

1 neighboring watersheds.

2 So in this situation, the Hoolawa hydrologic  
3 unit includes the Mokupapa Stream. Because it's such a  
4 small stream, it was incorporated together with Hoolawa.

5 Q And so that's why they have the same  
6 hydrologic unit number?

7 A Yes.

8 Q And do these numbers go in order?

9 A Yeah.

10 Q What -- what kind of order is it or what's the  
11 order determined by?

12 A Topographic. Their relationship on the  
13 island.

14 Q Okay. And are these numbers recorded  
15 somewhere for your use and for the public's use?

16 A Yeah. There was a publication in I would say  
17 20 years ago, before my time at the Commission, that  
18 identified the hydrologic unit numbers.

19 Q Would it be helpful to view that document in  
20 order to refresh your recollection about its title and  
21 year?

22 A I mean, do you -- do you -- is the year of  
23 publication important to you?

24 THE COURT: I don't think I need that, but you  
25 can make your record if you wish.

1 MS. GOLDMAN: Okay. I was just going to bring  
2 the Court's attention to the State's proposed Exhibit  
3 S-6, which -- let's double-check in my notes, Your  
4 Honor -- which is not in evidence and which is the  
5 document in which CWRM maintains these hydrologic unit  
6 names and numbers.

7 THE COURT: Again, that's fine. I don't  
8 expect I'm going to be making findings of facts about  
9 hydrologic units. I think I'll be talking about streams.

10 MS. GOLDMAN: Okay. Thank you.

11 Please continue to ask if we need more  
12 foundational questions for these things. Thank you,  
13 Mr. Schulmeister.

14 BY MS. GOLDMAN:

15 Q Okay. So going back to the Waipio Stream,  
16 that was Hydro Unit 6036. Have you been there?

17 A Yes.

18 Q Okay. How many times?

19 A I'd say four.

20 Q Okay. And when do you think the last time you  
21 went there was?

22 A In July.

23 Q Okay. July of this year?

24 A Yes.

25 Q Like -- okay. And why did you go there?

1           A           To verify stream diversion and to assess the  
2           upper watersheds.

3           Q           Okay. Okay. And what is the current IIFS for  
4           that stream, for --

5           A           Status quo.

6           Q           Okay. And again, that means that that's an  
7           amount that was set by statute; right?

8           A           (Inaudible response.)

9           Q           All right. Moving on to the next stream,  
10          Hanehoi. That's H-a-n-e-h-o-i. Unit No. 6037. Have you  
11          ever been there?

12          A           Yes.

13          Q           How many times?

14          A           I'd say 60.

15          Q           Why so many?

16          A           So on streams where we have monitoring  
17          stations, I return there about every two to three months  
18          as practice. But also for diversion verification,  
19          various site visits.

20          Q           Okay. We'll go back. I'd like to talk to you  
21          in a little more detail about monitoring stations later,  
22          but we'll just continue with this list for now.

23                        What is the IIFS for that stream currently?  
24          Do you know?

25          A           Full restoration.



1 Q Okay. As determined by whom or when?

2 A The 2018 decision and order by the Commission.

3 Q Okay. Thank you. All right. Moving on to  
4 Hoalua Stream. That's H-o-a-l-u-a Stream, Unit No. 6038.  
5 Have you been there?

6 A Yeah.

7 Q How many times?

8 A I'd say 120.

9 Q Okay. Why so many times there?

10 A It's very easily accessed from the main road,  
11 Hana Highway.

12 Q And what is the current IIFS for that stream?

13 A Status quo.

14 Q Thank you. So the next stream, moving on to  
15 Hanawana Stream. H-a-n-a-w-a-n-a. Sometimes spelled  
16 slightly differently. But it's Unit No. 6039. Have you  
17 been there?

18 A No.

19 Q No. Okay. Are you familiar with any  
20 diversions there despite not having seen them in person?

21 A Yes.

22 Q How are you familiar?

23 A Through photos and registration files.

24 Q Okay. Photos and registration files. Okay.

25 A They had verification field work done before

1 me.

2 Q Okay. Okay. And what is the current IIFS for  
3 that stream?

4 A Status quo.

5 Q Okay. And so moving on to the next one,  
6 Kailua Stream. I think we can avoid spelling finally.

7 6040. Have you been there?

8 A Yes.

9 Q Okay. How many times?

10 A About 120.

11 Q Okay. And why so many there?

12 A Again, it's easily accessed. Yeah.

13 Q Okay. And are you aware of the current IIFS  
14 for Kailua Stream? What is that?

15 A Status quo.

16 Q Okay. Moving on to Nailiilihaele,  
17 N-a-i-l-i-i-l-i-h-a-e-l-e Stream. Unit No. 6041. Have  
18 you been there?

19 A Yes.

20 Q How many times?

21 A 120. I'll just go with nice round figures.

22 Q Okay. And is that also because it's easily  
23 accessible?

24 A Easily accessible, yeah. It's right next to  
25 Kailua. So I tend to visit both, one right after the

1 other.

2 Q I see. Okay. And what is the current IIFS  
3 for Nailiilihaele?

4 A Status quo.

5 Q Okay. And what about Puehu Stream? That's  
6 P-u-e-h-u. Unit No. 6042? Have you been there?

7 A Only from the highway. I spent -- well, no, I  
8 take that back. Probably been four times in total if you  
9 don't include from the highway.

10 Q What do you mean don't include from the  
11 highway?

12 A Well, the stream is visible from the highway,  
13 but there is no diversion from the highway. It's  
14 downslope from the highway a ways and it's not easily  
15 accessible. So I drive past it quite regularly, but I  
16 don't stop. So not from the highway, but at other times  
17 I've been to other locations other than the highway on  
18 the stream.

19 Q I see. Thank you for clarifying.

20 Okay. And what is the current IIFS for Puehu?

21 A Status quo.

22 Q The next one `O`opuola. That's O-o-p-u-o-l-a.  
23 And I'll just note that I'm not using any of the  
24 diacritical marks right now. And that's Unit No. 6043.  
25 Have you been there?

1 A Yes.

2 Q How many times?

3 A 120.

4 Q Okay. And is that because -- how many times  
5 for work?

6 A 120. Well, 119. I don't know actually.

7 Let's call it 120.

8 Q It's approximately 120?

9 A Yeah, approximately.

10 Q Okay. And what is the current IIFS for  
11 `O`opuola?

12 A Status quo.

13 Q The next stream is Kaaiea. K-a-a-i-e-a. No.  
14 6044. Have you been there?

15 A Yes.

16 Q How many times?

17 A Four times.

18 Q Okay. And have you been there for work  
19 purposes?

20 A Yes.

21 Q When was the last time?

22 A In July.

23 Q Of this year?

24 A Yeah. Actually I went there also in August.

25 Sorry. August 3rd.

1 Q Sorry. You were in East Maui in August of  
2 this year? Like --

3 A Last -- yeah.

4 Q What were -- okay. And what day was that or  
5 when was that?

6 A August 3rd.

7 Q Okay. Was that for work purposes?

8 A Yes.

9 Q Okay. And you visited Kaaiea and others, I  
10 assume?

11 A Yes.

12 Q Okay. All right. And what is the current  
13 IIFS for Kaaiea?

14 A Status quo.

15 Q Punaluu is the next. P-u-n-a-l-u-u Stream.  
16 No. 6045. Have you ever been there?

17 A Yes.

18 Q And how many times?

19 A Once.

20 Q Okay. And was that for work or pleasure?

21 A Work.

22 Q When was that approximately?

23 A The 3rd of August.

24 Q Okay. This year; correct?

25 A Yeah.

1 Q Okay. How about Kolea? I'm sorry. Sticking  
2 with Punaluu for a moment. Prior to your first visit  
3 there in August, were you otherwise familiar with this  
4 stream already?

5 A Yes.

6 Q How so?

7 A Through previous site visit reports and  
8 documentation.

9 Q Okay. And have you ever analyzed any data  
10 regarding this stream in the course of your job?

11 A Yes.

12 Q Okay. And have you ever seen a representation  
13 of any of the diversion structures --

14 A Yes.

15 Q -- on this stream? Okay. Okay.

16 So moving to Kolea. That's K-o-l-e-a Stream.

17 Oh, I forgot to ask you what the IIFS was for  
18 Punaluu. I apologize.

19 A Status quo.

20 Q Thank you. Okay. Kolea. K-o-l-e-a. 6046.  
21 Have you been there?

22 MR. FRANKEL: Objection. Vague.

23 THE COURT: I'll allow it.

24 MR. FRANKEL: I just want to make sure we have  
25 clarity on the streams. I'm going to say vague.

1 THE COURT: It's Kolea Stream. What more are  
2 you asking for?

3 MR. FRANKEL: Well, there's two Kolea Streams,  
4 Your Honor, so I want to make sure we have clarity on  
5 that.

6 MS. GOLDMAN: If I may, that actually is the  
7 reason for providing the Court and the record today with  
8 these hydrologic unit numbers. And Dr. Strauch will talk  
9 more about that later, but I believe that should be  
10 enough clarity for now.

11 THE COURT: Go ahead.

12 BY MS. GOLDMAN:

13 Q Okay. Okay. So have you been there?

14 A Yes.

15 Q How many times?

16 A Four times.

17 Q Okay. And have you been there -- were those  
18 four times for work?

19 A Yes.

20 Q Are you familiar in any way with the diversion  
21 structures on that stream?

22 A Yes.

23 Q How so?

24 A I have been to them and I have seen historical  
25 documentation as well.

1 Q Okay. Thank you. All right. Moving on to  
2 the next one -- oh, and what was the IIFS, the current  
3 IIFS for that stream?

4 A Status quo.

5 Q Okay. Moving on to the next one, Alo, A-l-o.  
6 It's in the Waikamoi Hydrologic Unit 6047. Have you been  
7 there?

8 MR. FRANKEL: Objection. Vague. I'm sorry.  
9 Are we talking about streams or tributaries? I just want  
10 clarity here.

11 MS. GOLDMAN: At the moment we are talking  
12 about streams and some tributaries that are important  
13 enough to be assigned hydrologic unit numbers.

14 THE WITNESS: There are no tributaries that  
15 are themselves hydrologic unit numbers.

16 BY MS. GOLDMAN:

17 Q Okay. Thank you. And what is -- what is Alo  
18 a reference to? That's A-l-o.

19 A It's a tributary of Waikamoi.

20 Q And is that one of the petitioned streams in  
21 your knowledge?

22 A Yes.

23 Q And was that considered separately from  
24 Waikamoi in the 2018 CWRM decision?

25 A No.



1 Q Okay. Thank you.

2 Moving on to Waikamoi, W-a-i-k-a-m-o-i, in

3 Unit No. 6047. Have you been there?

4 A Yes.

5 Q How many times?

6 A About 120.

7 Q Okay. When was the last time?

8 A In July.

9 Q Okay. Had you been there prior to 2018 or --

10 A Yes.

11 Q Thank you. And are you aware of the current

12 IIFS for Waikamoi Stream?

13 A It is the H-90 flow, which --

14 Q Okay.

15 A -- I don't remember off the top of my head the

16 actual number value, but it's in the decision and order.

17 Q Okay. Thank you. We'll return later to have

18 you just explain to us what an H-90 flow is, but for now,

19 thank you. Are you also familiar with any or all of

20 these diversion structures on Waikamoi Stream?

21 A Yes.

22 Q How are you familiar?

23 A From personal site visit knowledge as well as

24 historic documentation.

25 Q Okay. Thank you. Okay. So the next one is

1 Puokokamoa (sic). That's P-u-o-k-o-k-a-m-o-a (sic). It  
2 is No. 6048.

3 MR. FRANKEL: Objection. Assumes facts not in  
4 evidence in terms of being the next one.

5 THE COURT: Well, it's the next one she's  
6 asking about.

7 MR. FRANKEL: Okay. I think she's trying to  
8 go in geographic order. And I think --

9 THE COURT: I'll allow it.

10 MR. FRANKEL: I'm just trying to help out a  
11 little bit here.

12 MS. GOLDMAN: That's fair.

13 THE COURT: Just go ahead.

14 MS. GOLDMAN: Okay. I can just -- the next  
15 hydrologic unit normal is 6048 and the stream that I  
16 previously spelled the name of.

17 BY MS. GOLDMAN:

18 Q Yes. Have you been there?

19 A I think --

20 Q Puokokamoa --

21 A To solve this problem, the next hydrologic  
22 unit is Wahinepe`e.

23 Q Okay. Thank you.

24 THE COURT: Time out. We're too often  
25 stepping on each other's speaking. Okay. I think it's

1 probably because you're trying to speak slowly for our  
2 court reporter, which is great. The witness is  
3 anticipating where the question is going and sometimes  
4 jumping in, sometimes not. And then while the witness is  
5 answering, then you're sometimes jumping in before he's  
6 completely finished. So -- and that's totally normal  
7 conversation, so none of what I'm saying right now is a  
8 critique. It's just we need to not do it that way out of  
9 courtesy to our court reporter. So everybody, just try  
10 to turn off the normal conversation methods that we all  
11 engage in all the time to kind of move the talk along.  
12 We don't want to do that here. We want to take it nice  
13 and slow and one at a time to make our court reporter's  
14 job easier. So thank you very much. Go ahead.

15 MS. GOLDMAN: Okay. Understood. Thank you,  
16 Your Honor.

17 BY MS. GOLDMAN:

18 Q Okay. So Puokokamoa Stream. 6048. Have you  
19 been there?

20 A Yes.

21 Q How many times?

22 A 40?

23 Q Okay. And had you been there prior to  
24 November 2018?

25 A Yes.

1 Q And are you familiar with any of the diversion  
2 structures on that stream?

3 A Yes.

4 Q How?

5 A From personal site visit knowledge and  
6 historical documentation.

7 Q Okay. Okay. Moving on to Unit 6049. Stream  
8 named Ha`ipua`ena. That's H-a-i-p-u-a-e-n-a. Have you  
9 been there?

10 A Yes.

11 Q How many times?

12 A 40 or so approximately.

13 Q Okay. And when was the last time?

14 A August 3rd.

15 Q Okay. Of this year?

16 A Yes.

17 Q And had you been there prior to November 2018?

18 A Yes.

19 Q And are you personally familiar with any of  
20 the diversion structures on that stream?

21 A Yes.

22 Q How?

23 A From field work, personal experience.

24 Q Okay.

25 A Course work documentation.

1 Q Okay. Thank you. And are you aware of the  
2 current IIFS for that stream?

3 A Yes.

4 Q How -- pardon. Rather than the exact number,  
5 can you -- is there a characterization you can give to  
6 that IIFS?

7 A That is the connectivity -- that is one of the  
8 connectivity flow streams.

9 Q And I forgot to ask you I think with respect  
10 to the previous stream in Unit No. 6048. What was the  
11 IIFS for that stream?

12 A That is also a connectivity flow stream.

13 Q I'll have you explain that term later.

14 THE COURT: Excuse me. So we're going to take  
15 our break now. We'll go -- we'll go ten minutes. So  
16 I'll see you at 11:22. All right? We're in recess.  
17 Thank you.

18 MS. GOLDMAN: Thank you, Your Honor.

19 (A recess was taken.)

20 THE COURT: We're back on record. FTR on?

21 THE CLERK: Yes.

22 THE COURT: Ready to go. Go ahead,  
23 Ms. Goldman.

24 MS. GOLDMAN: Thank you, Your Honor.

25 BY MS. GOLDMAN:

1 Q Dr. Strauch, the next number on the list was  
2 6050. That's Punalau, slash, Kolea Stream.

3 P-u-n-a-l-a-u. Actually it's called Punalau Stream.

4 And perhaps you should help explain to the  
5 Court the confusion about Kolea that Mr. Frankel was just  
6 referring to comes from. Oh, you're muted.

7 A Sorry. Kolea is the main tributary of  
8 Punalau. So in the higher elevations it is referred to  
9 as Kolea, but the lower to middle reach of the stream is  
10 called Punalau.

11 Q Okay. And for our purposes here today, is it  
12 all right if we just refer to Kolea as the other stream  
13 we spoke about and we'll just refer to this one as  
14 Punalau?

15 A Yes.

16 MR. WYNHOFF: Your Honor, this is Bill  
17 Wynchhoff. I'm really sorry to interrupt my own colleague.  
18 The reason I came in late is I was just talking to Glenn  
19 Higashi, and he said that he's sort of, you know, two or  
20 three degrees of separation away from some COVID person.  
21 So he doesn't want to go to his office. He doesn't want  
22 to come here.

23 I think we can -- you know, I completely  
24 respect Mr. Schulmeister's absolute right to cross-  
25 examine him. I don't know if Mr. Schulmeister is going

1 to need a bunch of exhibits. If so that might not be  
2 possible. I don't think any of us has a problem right  
3 now. As a courtesy, I just want you and everybody to  
4 know so that we can start to think about it.

5 And again, I apologize, Your Honor,  
6 particularly to my colleague, Ms. Goldman.

7 THE COURT: That's fine. We can address that  
8 later, but it's good to have the heads up.

9 Go ahead.

10 BY MS. GOLDMAN:

11 Q Punalau Stream, Dr. Strauch. Have you been  
12 there?

13 A I have.

14 Q How many times approximately?

15 A 120.

16 Q And were those for work?

17 A Yes.

18 Q When was the last time?

19 A I was there on August 3rd.

20 Q Okay. Was this one of the streams addressed  
21 in the 2018 decision and order --

22 A Yes.

23 Q -- by CWRM?

24 What kind of -- was it given a restoration  
25 status of any --

---

1 A Yes.

2 Q What --

3 A The H-90 flow.

4 Q Are you familiar with any individual diversion  
5 structures on that stream?

6 A I am.

7 Q And how -- how are you familiar?

8 A Personal site visit and historic  
9 documentation.

10 Q The next stream is Honomanu, No. 6051. It's  
11 H-o-n-o-m-a-n-u. Have you been there, Dr. Strauch?

12 A Yes.

13 Q How many times?

14 A About 120.

15 Q When was the last time?

16 A Mid-July.

17 Q Had you been there prior to November 2018?

18 A Yes.

19 Q Are you familiar with any of the diversion  
20 structures on that stream?

21 A I am.

22 Q How?

23 A From personal site visits and historic  
24 documentation.

25 Q And are you aware of whether that stream was



1 given a new IIFS by the CWRM in 2018?

2 A Yes, it was.

3 Q And what kind of IIFS was it given?

4 A An H-90 flow.

5 Q The next stream is Nua`ailua, 6052. That's  
6 N-u-a-`-a-i-l-u-a. Have you been there?

7 A Yes.

8 Q How many times approximately?

9 A 40.

10 Q Okay. Were those all for work?

11 A Yes.

12 Q When was the last time?

13 A July. Sorry. Mid-July 2020.

14 Q Was that stream -- did the CWRM set a new IIFS  
15 for that stream in 2018?

16 A Yes.

17 Q What kind of IIFS was it?

18 A Connectivity flow.

19 MR. FRANKEL: Your Honor.

20 THE COURT: Yes, sir.

21 MR. FRANKEL: Can I ask -- can I stipulate  
22 that Ms. Goldman can ask leading questions for the  
23 remainder of this foundation to make it much faster?

24 THE COURT: Yes. Thank you.

25 MS. GOLDMAN: Thank you, Mr. Frankel.

1 BY MS. GOLDMAN:

2 Q The next stream is 605 -- excuse me. 6053.  
3 Pi`ina`au. P-i-`-i-n-a-`-a-u. Dr. Strauch, have you  
4 also been here for work many times?

5 A Yes. Approximately 120 times.

6 Q Okay. And are you also familiar with  
7 diversion structures on this stream due to your own  
8 personal observations?

9 A Yes.

10 Q Are you also familiar with them from your  
11 review of historic data?

12 A Yes.

13 Q Are you aware of the IIFS status?

14 A Yes.

15 Q What is it?

16 A Full restoration.

17 Q When was that done?

18 A In the 2018 decision and order by the Water  
19 Commission.

20 Q Okay. The next stream has the same number,  
21 6053. It's called Palauhulu, P-a-l-a-u-h-u-l-u. You  
22 been there?

23 A Yes.

24 Q How many times?

25 A 120 times.

1 Q For work; right?

2 A Yes.

3 Q And that stream was the subject of a new --  
4 the recipient of a new IIFS determination in 2018; right?

5 A Yes.

6 Q And it was restored to full restoration  
7 status; is that right?

8 A Yes.

9 Q Thank you. And you are personally familiar  
10 with the diversion structures existing on that stream?

11 A Yes.

12 Q And you are also familiar with those  
13 structures due to historical data and your review -- your  
14 review of historic data?

15 A Yes.

16 Q Next stream, 6055 on our list, or on the list  
17 that we are going down right now. Waiokamilo,  
18 W-a-i-o-k-a-m-i-l-o. You are also familiar with this  
19 stream from work?

20 A Yes.

21 Q How often have you been?

22 A 40 times approximately.

23 Q And you are also personally familiar with the  
24 diversion structures currently existing on this stream;  
25 correct?

1 A No.

2 Q No? Are you familiar with them in any way  
3 that's not based on your personal observation?

4 A Yes. Through historic documentation. The  
5 diversions were discontinued prior to my arrival at CWRM.  
6 And I assume you're referring to the East Maui Irrigation  
7 diversions, not the community diversions, which I am also  
8 familiar with from personal experience.

9 Q Thank you for the clarification, Dr. Strauch.  
10 Yes. That was the question. Okay. Have you been to  
11 Wailuanui, No. 6056?

12 A Yes.

13 Q How many times?

14 A About 120 times.

15 Q Those were for work; right?

16 A Yes.

17 Q Are you personally familiar with any of the  
18 diversion structures there?

19 A Yes.

20 Q Are you also familiar with the historic data?

21 A Yes.

22 Q What is the restoration status of Wailuanui?

23 A Full restoration.

24 Q And excuse me. That was the IIFS  
25 determination; correct?

1 A Yes.

2 Q When was that determined?

3 A In the 2018 decision and order.

4 Q Next, 6057, West Wailuaiki. That's W-a-i-l-u-  
5 a-i-k-i. You've been to West Wailuaiki; right?

6 A Yes.

7 Q You've been there for work; right?

8 A Yes.

9 Q How many times?

10 A About 120 times.

11 Q You are personally familiar with diversion  
12 structures on West Wailuaiki Stream that are diversions  
13 into the ditch system for A&B, EMI that is the subject of  
14 this matter; correct?

15 A Yes.

16 Q What is the IIFS for West Wailuaiki?

17 A Full restoration.

18 Q When was that determined?

19 A In the 2018 decision and order.

20 Q Next we have 6058, East Wailuaiki, same  
21 spelling. W-a-i-l-u-a-i-k-i. You've been there?

22 A Yes.

23 Q How many times?

24 A About 120 times.

25 Q You're familiar with it from your work;

1 correct?

2 A Yes.

3 Q And you are personally familiar with the  
4 diversion structures on East Wailuaiki Stream; correct?

5 A Yes.

6 Q As qualified by my previous statement  
7 regarding --

8 A Yes.

9 Q Okay. What is the restoration status -- or  
10 pardon me. What is the IIFS for East Wailuaiki?

11 A H-90 flow.

12 Q When was that set?

13 A In the 2018 decision and order.

14 Q To your knowledge, why -- or we'll come back  
15 to this actually.

16 The next stream is 6059, Pua`aka`a. That's  
17 P-u-a-`-a-k-a-`-a. No. 6059. You're familiar with this  
18 stream; correct?

19 MR. FRANKEL: Objection. Assumes facts not in  
20 evidence.

21 THE COURT: What? That it's a stream?

22 MR. FRANKEL: Correct, Your Honor.

23 THE COURT: All right.

24 MR. FRANKEL: It's a tributary.

25 THE COURT: If you could rephrase.

1 MS. GOLDMAN: Okay. Thank you, Your Honor.

2 BY MS. GOLDMAN:

3 Q Pua`aka`a Tributary. Dr. Strauch, have you  
4 been there?

5 A Yes.

6 Q How many times?

7 A Four times.

8 Q Had you been there prior to November 2018?

9 A Yes.

10 Q And you are personally familiar with the  
11 diversion structures, the relevant diversion structures  
12 on that tributary; correct?

13 A Yes.

14 Q And that tributary was -- had a new IIFS set  
15 in 2018; correct?

16 A Yes.

17 Q And the restoration status was connectivity  
18 status; right?

19 A Yes.

20 Q 6059 again. This stream is called Kopiliula.  
21 K-o-p-i-l-i-u-l-a. You've been there; right?

22 A Yes.

23 Q How many times?

24 A About 120 times.

25 Q Those were for work; correct?

1 A Yes.

2 Q Are you personally familiar with the diversion  
3 structures on Kopiliula Stream?

4 A No.

5 Q Are you aware of the diversion structures on  
6 that stream?

7 A Yes.

8 Q How so?

9 A Oh, wait. Sorry. I was mixing them up in my  
10 mind. I have them to the Kopiliula Intake. Ko`olau  
11 Ditch, yes.

12 Q Okay. And are you also familiar with  
13 diversion structures besides from your personal  
14 observations?

15 A From historic documentation, yes.

16 Q Kopiliula also received a new IIFS as of 2018;  
17 correct?

18 A Yes.

19 Q That was H-90? It was restored to H-90 flow;  
20 correct?

21 A Yes.

22 Q Next, No. 6060. Waiohue. W-a-i-o-h-u-e.  
23 You've been there; right?

24 A Yes.

25 Q This is Waiohue Stream; right?



1 A Yes.

2 Q How many times have you been there?

3 A 80 times.

4 Q And that was for work; right?

5 A Yes.

6 Q And you are personally familiar with diversion  
7 structures on Waiohue Stream; correct?

8 A Yes.

9 Q Are you also familiar with calculations and  
10 historical data regarding that stream?

11 A Yes.

12 Q Is that awareness something that you gained in  
13 the course of your job?

14 A Yes.

15 Q Waiohue Stream was fully restored by decision  
16 and order in 2018; is that right?

17 A The IIFS was full restoration, yes.

18 Q Thank you. Next, Pa`akea. That's 6061. And  
19 it's spelled P-a-`-a-k-e-a. You've been there?

20 A Yes.

21 Q How many times?

22 A Once.

23 Q Was that prior to November 2018?

24 A Yes.

25 Q Was -- are you personally familiar with the

1 diversion structures?

2 A Yes.

3 Q Okay. The 2018 CWRM decision set a new IIFS  
4 for Pa`akea; correct?

5 A Yes.

6 Q That restoration status was connectivity;  
7 right?

8 A Yes.

9 Q Next, 6061, Puakea Stream. P-u-a-k-e-a. Have  
10 you been there?

11 A Yes.

12 Q How many times?

13 A One time.

14 Q And was that prior to November of 2018?

15 A Yes.

16 Q Are you personally familiar with the diversion  
17 structures or structures on Puakea Stream?

18 A Yes.

19 Q What is the current IIFS for Puakea?

20 A It does not have one, I don't think.

21 Q By that do you mean that it has the status  
22 quo --

23 A Sorry. Yes.

24 Q Just to clarify. And which hydrologic unit is  
25 that stream in?

---

1           A           Puakea is in the Pa`akea hydrologic unit.

2           Q           Next --

3           A           It's a tributary of Pa`akea.

4           Q           Thank you for clarifying.

5                       6062, Waiaaka. W-a-i-a-a-k-a. What's that?

6           A           You mean --

7           Q           Is it a stream?

8           A           Yes.

9           Q           That's what I meant.

10          A           It is a stream.

11          Q           Okay. Have you been there?

12          A           Yes.

13          Q           How many times?

14          A           About a dozen.

15          Q           Were any of those times from prior to November

16   2018?

17          A           Yes.

18          Q           Was Waiaaka one of the petitioned streams

19   before CWRM in 2018?

20          A           Yes.

21          Q           And did the CWRM set a new IIFS for that

22   stream?

23          A           It set a quantifiable number at the highway,

24   yes.

25                       THE COURT: I don't understand what you mean

1 by that.

2 THE WITNESS: There is an IIFS, yes.

3 BY MS. GOLDMAN:

4 Q Okay. That IIFS is not, however, full  
5 restoration; correct?

6 A Correct.

7 Q And it's not H-90; right?

8 A Correct.

9 Q And it's not connectivity status; right?

10 A Correct.

11 Q Thank you. 6063, Kapaula, K-a-p-a-u-l-a.

12 Have you been there?

13 A Yes.

14 Q Is that a stream or a tributary?

15 A That's the name of the main stream.

16 Q How many times have you been there?

17 A About a dozen times.

18 Q Those times were for your current job;

19 correct?

20 A Yes.

21 Q And you had been there prior to November 2018;

22 correct?

23 A Yes.

24 Q And you are personally familiar with diversion  
25 structures relevant to this case on Kapaula Stream?

1           A           Yes.

2           Q           And that stream received a new IIFS from the  
3           CWRM in 2018; right?

4           A           Yes.

5           Q           And that stream's new IIFS was designed to  
6           restore it for connectivity; correct?

7           A           Yes.

8           Q           Next, 6064. Hanawi. That's H-a-n-a-w-i. I  
9           believe with the kahako. Have you been there?

10          A           Yes.

11          Q           How many times?

12          A           About 60 times.

13          Q           Are you -- those times were for work; right?

14          A           Yes.

15          Q           And you are personally familiar with some or  
16          all of the diversion structures relevant to that stream;  
17          correct?

18          A           Yes.

19          Q           I would just clarify the previous question by  
20          saying the diversion structures we're referring to are  
21          the ones that lead into the A&B EMI ditch system;  
22          correct?

23          A           Yes.

24          Q           Maka -- oh. The CWRM set a new IIFS for  
25          Hanawi in 2018; right?

1 A Yes.

2 Q Hanawi was restored for connectivity; right?

3 A Yes.

4 Q Makapipi Stream, 6065. M-a-k-a-p-i-p-i.

5 You're familiar with Makapipi; right?

6 A Yes.

7 Q Okay. How many times have you been there?

8 A About 60 times.

9 Q Those are for work; right?

10 A Yes.

11 Q Are you also personally family with the  
12 diversion structures on Makapipi Stream?

13 A Yes.

14 Q With some or all of those structures?

15 A Yes.

16 Q That stream was given a new IIFS in the 2018  
17 decision by CWRM; correct?

18 A Yes.

19 Q That stream, Makapipi, was restored fully or  
20 it was full restoration was the intent of the new IIFS;  
21 correct?

22 A Full flow restoration; correct.

23 Q Full flow restoration.

24 And Makapipi -- is that the last stream  
25 before -- before -- is that the end of the ditch system

1 basically?

2 A Technically it's the start of the --

3 Q Thank you. Okay. Well, it marks one end;  
4 correct?

5 A Yes.

6 Q Thank you. And just for everybody in the  
7 courtroom, we are going to skip -- (inaudible).

8 Okay. Okay. Earlier you talked about --  
9 earlier you talked about part of one of your job duties,  
10 you're involved in gauging and monitoring these streams;  
11 correct?

12 A Correct.

13 Q Tell us what kind of work you do to that end.

14 A So we monitor instream flow standards below  
15 stream diversions where the Commission has established  
16 instream flow standards or interim instream flow  
17 standards.

18 And we monitor in a few occasions natural  
19 flow, whether it's used as an index station or the flow  
20 of water above a diversion. And in this capacity we  
21 survey in the equipment, the datum. The datum is a point  
22 of reference. It's a fixed point that the elevations are  
23 taken from. We survey in a staff plate, which is  
24 essentially a ruler in the stream to measure the  
25 elevation or the height of the water in the stream. We

1       then install equipment to monitor as in log or record the  
2       elevation. And sometimes that equipment can communicate  
3       via satellite or cellular network. But most of the time  
4       because of expenses, we include or we install data  
5       loggers that have to be manually downloaded.

6                The stage, however, of the stream doesn't tell  
7       us the flow rate. Flow rate has to be converted using  
8       what's called a rating curve. And we develop a rating  
9       curve by taking flow measurements across a range of flow  
10      conditions, from low flow to high flow, in order to  
11      develop a mathematical model to convert the elevation of  
12      the water to flow.

13               Now, this --

14       Q       Okay.

15       A       -- rating curve --

16       Q       I'm sorry. May I stop you there to just  
17      clarify for all of us what some of those terms mean. You  
18      used a lot of really big terms right there or just terms  
19      that I believe are not common knowledge to  
20      non-scientists. What is a stage?

21       A       The elevation of the water above a datum.

22       Q       Why is that important?

23       A       Because as water flow, which is a three-  
24      dimensional concept, increases or decreases, the  
25      elevation in the water changes. And we don't have the



1 technical capability to monitor three-dimensional flow in  
2 natural conditions such as Hawaiian streams. So we have  
3 to monitor the elevation of the water one-dimensional and  
4 we convert that into flow. It's just a limitation of the  
5 technical ability to monitor.

6 Q Okay. You said that monitor -- or that flow  
7 is a 3D concept. Can you explain that a little further.

8 A So technically it's 4D because it's a volume  
9 per second or per unit of time. In the Commission's  
10 case, they often establish instream flow standards per  
11 day. So it's like a unit called million gallons per day.  
12 But in -- the standard form -- the standard methods that  
13 the U.S. Geological Survey and the Water Commission staff  
14 use on a daily basis is called cubic feet per second.  
15 They can be converted interchangeably. Irrigation  
16 operators often use acre feet. It's another unit. So  
17 it's -- you know, flow is three-dimensional. It's  
18 widths, depths, and height. And it's width, depths, and  
19 length and then unit time.

20 Q Okay. Thank you. What does the flow of a  
21 stream tell you?

22 A It's the amount of water moving in a stream  
23 channel.

24 Q And that's throughout the whole stream or  
25 what --

1           A           At a specific location.

2           Q           What goes into setting up a gage?

3           A           Well, as I just described, you have to  
4           establish a datum. So in a global setting, the datum is  
5           relevance to mean sea level, but it's not relevant to  
6           measure elevation of tiny changes in elevation of water  
7           relative to mean sea level. So you establish what's  
8           called a local datum, and that is a point of reference.

9                        You see these frequently with surveyors. They  
10           establish datums on bridges or in other areas. You'll  
11           actually find U.S. Geological Survey datums spread  
12           throughout the state. Those are other datums.

13                      But for a gaging station, a datum is  
14           established, and then you install other points of  
15           reference that are in fixed places, that hopefully don't  
16           move because we have dynamic streams that are constantly  
17           eroding. And so the movement of large boulders or  
18           structures that might affect the conditions in the  
19           stream -- you want to not place your datum or reference  
20           points on those. You want them stable.

21           Q           You just sort of touched on it. But how else  
22           do you figure out where to physically put the gage?

23           A           So the actual data logger and staff plate need  
24           to be in a section of the stream channel that has a good  
25           control point, which is a reference of zero flow or an

1 elevation of zero flow.

2 And you want a -- what we call a gage pool.

3 So it's a part of the stream channel that has consistent  
4 changes in elevation with changes in flow that makes  
5 developing a reading curve easier.

6 Q Pardon.

7 A Sorry.

8 Q Continue.

9 A And then you install the data logger or the  
10 pressure transducer equipment in the gage pool and site  
11 it in reference to the staff plate and the datum.

12 Q Do all streams have good areas to monitor?

13 A Not in the case of Hawaii. We have a lot of  
14 difficult conditions in the field that make monitoring  
15 challenging. This includes rapidly eroding watersheds,  
16 watersheds that have gaining and losing reaches that make  
17 measurements difficult relative to the equipment. We  
18 just also have access issues. So there might be a great  
19 place to monitor a thousand feet or at a thousand foot  
20 elevation, but to get there -- I mean, we're limited by  
21 the availability of roads and trails. And for helicopter  
22 landing zones, for example.

23 Q Okay. And what is the purpose of taking these  
24 measurements aside from, as you previously said,  
25 measuring the amount of water at any given time?

1           A           So what is the purpose of the data?

2           Q           Yes.

3           A           So the data are used to establish how -- how  
4 much flow is in the stream over a period of time before  
5 ensuring that interim instream flow standards are being  
6 adhered to but also for monitoring natural flow  
7 conditions. So what is the variability of flow at a  
8 particular location.

9           Q           How many gaging stations do you maintain  
10 statewide?

11          A           The Water Commission maintains?

12          Q           Yes. Thank you for clarifying. How many  
13 gaging stations does the Water Commission maintain?

14          A           I think 42, off the top of my head.

15          Q           How many are on Maui? On the Island of Maui?  
16 Approximately.

17          A           Approximately 20, 22. Somewhere around there.

18          Q           Approximately how many of these are located  
19 within this particular licensed area?

20          A           Approximately 12.

21          Q           And of those approximately 12, how many needs  
22 to be visited in person to retrieve the data?

23          A           All of them.

24          Q           And who does that?

25          A           Me.

1 Q How often do you do that?

2 A At least quarterly.

3 MS. GOLDMAN: Your Honor, I notice that it is  
4 11:58 a.m., and I was going to move to an exhibit. So  
5 perhaps this would be a good time to break?

6 THE COURT: That's fine. Let's go off record  
7 for a second.

8 (A recess was taken.)

9 THE COURT: We're back on record. FTR on?

10 THE CLERK: Yes, it is.

11 THE COURT: Ready to go?

12 MR. FRANKEL: I think there that's one thing  
13 that we wanted to put on the record. Mr. Schulmeister?

14 THE COURT: Go ahead.

15 MR. SCHULMEISTER: Yeah. I've given the -- I  
16 wanted to make everyone's life a little easier. So I've  
17 decided -- I looked over what I was going to talk to  
18 Mr. Higashi about, and I've decided I can waive that.

19 THE COURT: Okay. So we're not going to --

20 MR. SCHULMEISTER: Rather than force him to  
21 come in.

22 THE COURT: That would mean no one's going to  
23 recall him?

24 MR. SCHULMEISTER: Unless somebody else wants  
25 to. But I'll waive recalling him.

1 THE COURT: Okay.

2 MS. GOLDMAN: Your Honor, I don't know that we  
3 made 100 percent final decision on that, but yes, we do  
4 not believe we will be calling him.

5 THE COURT: Okay. We'll just leave it at that  
6 for now. Thanks for the heads up though. That's  
7 helpful.

8 All right. We ready to go with -- I'm sorry.  
9 Do you go by mister or doctor or what do you prefer?

10 THE WITNESS: It's usually Ayron, but Dr.  
11 Strauch works too if someone wants to try and pronounce  
12 my last name.

13 THE COURT: I will refer to you as Dr. Strauch  
14 unless you tell me otherwise.

15 THE WITNESS: Okay.

16 THE COURT: Ready to go, Ms. Goldman?

17 MS. GOLDMAN: Yes, Your Honor.

18 THE COURT: All right.

19 MR. WYNHOFF: Your Honor, Bill Wynhoff here  
20 again. Hi. Susan Case said she just got done and might  
21 be on any minute now.

22 THE COURT: That's good. Thanks.

23 MS. GOLDMAN: Thank you.

24 THE COURT: Go ahead.

25 BY MS. GOLDMAN:

1           Q           Before the lunch break, Dr. Strauch, we were  
2           talking about stream gaging and your work in monitoring  
3           the streams. You mentioned that there were a dozen gages  
4           approximately in the licensed area at issue here. Is  
5           that right?

6           A           That CWRM maintains; correct.

7           Q           That CWRM maintains. If money was no object,  
8           would CWRM maintain a gage on every stream?

9           A           No because in terms of instream flow standard  
10          compliance, some of the instream flow standards can be  
11          complied with without constant monitoring.

12                    In terms of natural flow conditions, the  
13          natural flow conditions are monitored by U.S. Geological  
14          Survey through a cooperative agreement with us. And  
15          those flow conditions are monitored throughout the area.  
16          And the conditions that occur in one stream are  
17          equivalent to conditions that are occurring in  
18          neighboring streams. So it would be redundant to monitor  
19          every stream.

20          Q           Okay. So just to clarify, so if money and  
21          resources were absolutely no object, would it still be  
22          redundant?

23          A           Correct.

24          Q           Okay. In this data -- what happens to the  
25          data that you 're collecting from the gaging station?

1           A           So the Commission collects I guess three types  
2           of data. First we make flow measurements. So that's a  
3           point-in-time measurement of how much water is moving  
4           through the certain channel. Then we collect stage data  
5           that are recorded on the data loggers that are the  
6           equipment that we install in the stream. And then we  
7           convert the stage data using a rating curve that we  
8           develop into flow. That flow data gets compiled.  
9           Generally decisions get made based on mean daily flow  
10          values. And that data then gets historically uploaded to  
11          the CWRM website.

12                        We are currently in the works of developing a  
13          geoportal that gives the public more access to the raw  
14          data, which our IT capabilities are somewhat limited so  
15          we can only publish the processed data in PDF format at  
16          the moment.

17          Q           So the gaging data that you collect from this  
18          East Maui area is currently available to the public  
19          online?

20          A           Much of it is, yes.

21          Q           And even if resources were no object, you  
22          would not -- I withdraw that question actually. How do  
23          you verify that an IIFS is being met?

24          A           By doing point measurements again and by  
25          analyzing the data recorded in the date loggers to verify



1       that the minimum amount of flow is occurring over a  
2       period of time. And then we compare that data to natural  
3       flow conditions at index stations, which are  
4       representative of the hydrology of the point of interest.

5           Q       Talk a little bit more about index stations  
6       please for just a moment.

7           A       So index stations are long-term continuous  
8       monitoring stations that the USGS maintains with CWRM as  
9       a cooperative agreement. USGS stands for U.S. Geological  
10      Survey. They are the agency, the federal agency, charged  
11      with monitoring hydrological resources in the United  
12      States.

13                   And through a cooperative agreement, we  
14      maintain index stations in East Maui to provide us with  
15      realtime information that is relevant to both our  
16      instream flow standard analysis, but also to the general  
17      public for flooding issues, for long-term analysis of  
18      hydrological conditions, these sorts of things.

19           Q       Okay. And in working with the USGS to  
20      maintain this data, where is all of this data stored?

21           A       In the publicly available database, another  
22      geoportal. The easiest way to access those are through  
23      our website. We have a link or actually a page on our  
24      website that presents the most up-to-date information  
25      across the state. But then it is also accessible to the

1 federal government's geoportal.

2 And the reason why we maintain this database  
3 of index stations is because the Water Code specifies  
4 that within the Hawaii water plan, the Water Resource  
5 Protection Plan identifies the need to monitor  
6 hydrological resources across the state to make sound  
7 management decisions. So it falls on the Water  
8 Commission to fund the statewide network of hydrological  
9 monitoring stations.

10 Q So would you say in your understanding the  
11 members of the Board of Land and Natural Resources know  
12 that CWRM is collecting this data?

13 MR. FRANKEL: Objection. Calls for  
14 speculation, lacks foundation.

15 THE COURT: I'll allow it. It's his  
16 understanding.

17 MR. FRANKEL: Whether they know?

18 THE COURT: Just if they know that data's  
19 being collected. That's all. His understanding.

20 THE WITNESS: So this is --

21 THE COURT: He's here in front of me, so I  
22 might as well find out.

23 THE WITNESS: These are the -- these data  
24 sources that USGS gather, whether it's rainfall,  
25 streamflow, ground water levels, are relative to a

1 variety of agencies and the public. And they're relied  
2 upon by everybody as a source of information. So I  
3 would -- I mean, it is my understanding that the agencies  
4 that are interested in water resources would go to these  
5 websites.

6 BY MS. GOLDMAN:

7 Q What --

8 A Which include the state Commission on Water  
9 Resource Management's own website.

10 Q What other agencies do you personally have  
11 experience working with this data?

12 A We work with U.S. Fish and Wildlife Service,  
13 USDA Forest Service, other members of the USGS, the  
14 University of Hawaii, the Division of Aquatic Resources,  
15 Land Division, even SHPD in some cases, state parks.  
16 Maui County at a number of different levels, Hawaii  
17 County. Actually each county agency. The Big Island.

18 Q You used an acronym SHPD. If you could state  
19 what that means --

20 A State Historic Preservation Division. It's  
21 the agency -- it's the division within DLNR that's  
22 charged with historic preservation.

23 Q Okay. So you work with federal organizations  
24 as well as with various divisions within DLNR on some of  
25 these monitoring?

1           A           And nonprofit divisions as well or nonprofit  
2 agencies.

3           Q           And if A&B, EMI was not honoring the IIFS, how  
4 would you know?

5           A           We would look at the data and it would show  
6 that the flows at that particular location, which should  
7 be at value or not at value.

8           Q           So let's break this down a little bit. So if  
9 in your evaluation you notice that a flow does not appear  
10 to be meeting the IIFS, what do you do?

11          A           The first thing we do is we look at natural  
12 hydrological conditions. So in some cases, the IIFS is  
13 set at a flow that occurs 90 percent of the time. So in  
14 -- a flow duration occurs, which is a mathematical  
15 representation of the magnitude of flows that occur over  
16 a given period of time.

17                   A flow that occurs 90 percent of the time or  
18 the Q 90 flow is a relatively low flow. That means only  
19 10 percent of the time is there not that amount of water  
20 naturally in the stream.

21                   However, we have to figure out if that 10  
22 percent of the time is occurring or not. And that's why  
23 we use index stations.

24          Q           And what -- what would be the procedure if you  
25 did determine that low flows were due to negligence or

1 some reason related to EMI and A&B's diversions of the  
2 water?

3 A We would do a couple of things. One, we would  
4 formulate -- we would have an internal conversation about  
5 the next steps to take, and then we would formulate a  
6 notice of violation letter. And that goes through the  
7 Regulations and Preventing Section. And then that would  
8 get sent to A&B. We would probably also communicate that  
9 to A&B that we were formulating this notice of violation.

10 Generally speaking, outside of this situation  
11 that we're talking about, we've had complaints about  
12 instream flow standards not being met. And so we would  
13 engage with the person or entity making the complaint as  
14 well.

15 Q And if a complaint is made and you have reason  
16 to suspect some kind of violation and you send one of  
17 these notices of violation, is it your understanding that  
18 the Board of Land and Natural Resources would be aware?

19 A We would consult with the Land Division as  
20 well and, therefore, the Board.

21 Q Okay. What is a ratings curve? You've  
22 mentioned it a few times.

23 A The rating curve is the mathematical formula  
24 that allows us to convert the stage or height of flow in  
25 a stream to a flow rate. So either cubic feet per second

1 or million gallons per day.

2 Q What does such a measurement tell you?

3 A It allows us to convert the staged data  
4 recorded by the data logger into flow.

5 Q What is base flow? What does that term mean?

6 A Base flow tends to be considered, especially  
7 here in Hawaii, the ground water contribution to  
8 streamflow. The ground water contribution can be high  
9 elevation ground water or it can be base flow ground  
10 water. But it's generally the ground water contribution  
11 to streamflow.

12 Q And are there any diversions that capture 100  
13 percent of base flow?

14 A Most of them do.

15 Q Okay. What's an example -- or excuse me. Are  
16 you aware of any diversions in the East Maui area that  
17 collect 100 percent of base flow?

18 A Yes. And can I qualify my previous answer  
19 with, I assume you're referring to this region, East  
20 Maui, when you asked do diversions take 100 percent of  
21 base flow.

22 Q Yes, I was. Thank you for clarifying. How  
23 can you tell that a diversion is designed to capture 100  
24 percent of base flow?

25 A Based on the geometry and the structure.

1           Q           What's an example from the East Maui area of a  
2           type of diversion that's designed to capture 100 percent  
3           of base flow?

4           A           The intakes on Hoolawa nui or Hoolawa lii lii  
5           are where the grate is across the entire stream channel  
6           but allows the base flow to drop into a collection basin  
7           that then is connected to the ditch.

8           Q           So if 100 percent of base flow is captured,  
9           does that mean that 100 percent of all water is captured?

10          A           No.

11          Q           Why not?

12          A           Streamflows here in Hawaii vary quite rapidly  
13          over time and across various orders of magnitude, which  
14          the diversions are designed to capture the low to medium  
15          flows because those are the stable flows. The higher  
16          peak flows, the freshets, occur bringing silts, gravel,  
17          debris, boulders in some cases downstream.

18                    These are young volcanic islands that are  
19          rapidly eroding. And we have a steep elevational  
20          gradient in which orographic rainfall, so the rainfall  
21          that the trade winds bring. I'm trying to not use  
22          technical terms. I'm sorry. We have big rain events  
23          frequently, especially during wet seasons, but also on  
24          other parts of the islands during dry seasons due to  
25          various climactic factors. And these storm events cause

1 tremendous amounts of rainfall and runoff which  
2 transports sediment, debris.

3 The operation of the irrigation system is  
4 designed to not capture the -- it takes a lot of effort  
5 to keep these irrigation systems clean. And they don't  
6 want the rock, the debris, to end up in the irrigation  
7 system. So the --

8 Q (Indiscernible). By in the irrigation system,  
9 do you mean in the ditch?

10 A Yeah. Yeah. So the diversions themselves  
11 allow the boulders to either roll across them and  
12 therefore -- with the high flow events or the water  
13 buildup behind the dam and spills over during these high  
14 flow events and the gravel and cobble are sluiced through  
15 a sluice gate.

16 Either way, the bigger flow events that occur  
17 maybe 20 percent of the time, 30 percent of the time,  
18 depending on the individual stream and point of  
19 diversion, they continue downstream. So when a diversion  
20 is designed to capture up to a certain say 10 million  
21 gallons per day, all the flows greater than 10 million  
22 gallons per day continue downstream.

23 Q And you're saying that that is an intentional  
24 design feature designed to keep sediment and boulders,  
25 etc., out of these ditches?



1           A           Correct. Also the ditch has its own maximum  
2           capacity, and when it rains and there's a lot of runoff,  
3           we're talking hundreds of times greater than the maximum  
4           capacity of the ditch itself. And so they -- they really  
5           don't want those big runoff events.

6                    THE COURT: I need a clarification, Doctor. A  
7           little while ago you were talking about base flow and you  
8           used the -- you used the term ground water contribution.  
9           I think I know what that is, but could you make it  
10          completely clear for me?

11                   THE WITNESS: Sure. So if you think of a --  
12          if you took a cross-section, if you slice the island in  
13          half and you looked at it, we have basically two types of  
14          ground water. We have the basal lens, which is a lens-  
15          shaped water body that sits on salt water that is  
16          basically at sea level. It extends above and below sea  
17          level. But it's at the sea level elevation. That's  
18          called the basal lens. And then we have higher elevation  
19          water, and those are things like perched water bodies  
20          that occur because of what we call aquitards or geology  
21          prohibits the downward infiltration of water. We also  
22          have dike-impounded ground water. So we have vertical  
23          aquitards which impound water vertically.

24                    And as a stream channel erodes, we get what's  
25          called incision. And the stream channel is -- this is

1 part of watershed geology. And as the stream erodes, we  
2 get incision. You can think about it like a V shape.  
3 Starts out a shallow V and then gets narrower and deeper  
4 and deeper. As that V intersects these high elevation  
5 ground water bodies, you get ground water spilling into  
6 the stream.

7 So it can be in the form of a spring on the  
8 side of the mountain. It could be a spring coming up in  
9 the stream itself. That's where you get ground water  
10 contributions. And it's all based on geology and age of  
11 substrate, and that sort of thing.

12 THE COURT: Got it. Thank you.

13 BY MS. GOLDMAN:

14 Q That was an excellent question. Thank you for  
15 clarifying that, Dr. Strauch.

16 Could you also please explain what surface  
17 water is -- what is meant by that term?

18 A Generally speaking, we have runoff and then we  
19 have ground water contributions to surface water. So the  
20 streamflow is a combination of runoff and ground water  
21 that's contributing to the stream.

22 Q Okay. So earlier you mentioned that capturing  
23 100 percent of base flow doesn't necessarily mean 100  
24 percent of all water is captured. Actually I'll withdraw  
25 that portion. What is a gaining stream?

1           A           Gaining stream is a stream where as you move  
2           from high elevation to low elevation, there is more flow  
3           in the stream due to more ground water contributions to  
4           the streamflow.

5                        So in a hypothetical situation, if it's really  
6           dry for say a week at a time, you know there's no runoff.  
7           In a gaining stream, it might start at 1,000 foot  
8           elevation and have 5 cubic feet per second in the stream  
9           channel. And you move down slope to the 800 feet  
10          elevation and you might have 7 cubic feet per second.  
11          You know there's no contributions from other surface  
12          water sources, no other tributaries flowing. There's no  
13          runoff flowing into the stream. But there's more water  
14          in the stream because of that increased ground water  
15          contribution.

16          Q           Okay. And so you mentioned -- or let's just  
17          take a stream for an example. Let take Hoolawa Stream.  
18          What -- to your knowledge what is the highest elevation  
19          ditch that Hoolawa intersects with?

20          A           Waiialoa Ditch.

21          Q           Okay. So hypothetically speaking, if a  
22          photograph showed that the ground here is dry immediately  
23          makai of a diversion, does that mean the rest of the  
24          stream will be dry?

25          A           No. It depends on the specific tributary that

1     you're talking about, the size of the stream, the depth  
2     of the incision within the watershed.

3             So Hoolawa nui, for example, the larger  
4     tributary, if you move from -- if you move makai of the  
5     Waialoa Ditch intake a few thousand feet downstream, you  
6     will get ground water seeping down into the stream.

7             THE COURT:  So before we move on, the record  
8     should show that before the doctor started to answer,  
9     Mr. Frankel was trying to interpose an objection, I  
10    believe, but he was muted.  So -- as I promised before  
11    this trial started, I said I'm not going to hold that  
12    against anybody.  So I'm going to keep true to that  
13    promise.

14            So go ahead and make your objection now and I  
15    will I apply it.

16            MR. FRANKEL:  Thank you.  I was going to  
17    object that it was calling for expert opinion because it  
18    was a hypothetical.  His answer, however, towards the end  
19    was observational.  But to the extent that the beginning  
20    part of his answer was providing opinion testimony, I  
21    move to strike.

22            THE COURT:  All right.  That's overruled.

23    BY MS. GOLDMAN:

24            Q        So I think you may have touched on this, but  
25    I'm not sure how clear it was.  What happens when there

1 is a freshet or one of those runoff events or flash  
2 floods that causes the amount of water to exceed the  
3 capacity of the diversion?

4 A There is continual flow downstream past the  
5 diversion.

6 Q And does this happen -- how often do these  
7 types of events happen?

8 A About -- well, it depends on the stream, it  
9 depends on the diversion, but back of the envelope,  
10 probably 30 percent of the time you get flows that exceed  
11 the capacity of any given diversion.

12 Q So by 30 percent of the time, you mean like in  
13 a ten-day period, three days on average would have a  
14 condition like that?

15 A No. I mean over a 30-year period, 30 percent  
16 of the time we'll have these conditions.

17 Q Okay. How do you know that it happens with  
18 regularity?

19 A Because we have both historic stream gaging  
20 data on many of these streams, but also current realtime  
21 data on the index stations that I mentioned. So we  
22 continue to gather these -- the frequency of peak flow  
23 events.

24 And -- and then our gaging stations that  
25 monitor instream flow standards, they obviously also

1 register all flows. I mean, they're monitoring 15  
2 minutes -- every 15 minutes. And so when a stream is 8  
3 feet deep, we're also reading 8 feet deep. I mean, we're  
4 just not as interested in it for management of instream  
5 flow standards.

6 Q Okay. Earlier you testified regarding your  
7 personal knowledge and your historical observations and  
8 analysis of various diversion structures located within  
9 this licensed area. To your knowledge, are there any  
10 diversion structures that you know of that do not ever  
11 get flushed out by storm water?

12 A If there's a structure in the stream, it would  
13 be designed to allow for the peak flow events to flow  
14 over it.

15 Q I think that means no.

16 A Not all diversions are structures in the  
17 stream.

18 Q Thank you for clarifying. So all diversion  
19 structures that are in the stream allow for freshets to  
20 pass over; correct?

21 A Yes.

22 Q Of these 13 streams that -- if I refer to 13  
23 streams, do you know which 13 streams I'm referring to?

24 A Yes.

25 Q Of these 13 -- of those 13 streams, which ones

1 are gaining streams?

2 A Hoolawa.

3 MR. SCHULMEISTER: I would like to object.  
4 I'd like the record a little clearer. I don't need the  
5 names of the streams, but just some further description  
6 of the 13 streams would be useful.

7 THE COURT: That's fine. Go ahead.

8 MS. GOLDMAN: Understood.

9 BY MS. GOLDMAN:

10 Q To your knowledge, how many streams within  
11 this licensed area are still covered by a historical IIFS  
12 set at the status quo? In other words, how many did not  
13 have a new IIFS set or clarified in 2018?

14 A How many streams were gaining that don't have  
15 a 2018 established IIFS?

16 Q How many streams of the list that we earlier  
17 went through? How many of these did not have an IIFS set  
18 or clarified in 2018?

19 THE COURT: Yeah. Whether gaining or not.

20 BY MS. GOLDMAN:

21 Q Whether gaining or not. Yes.

22 A I think it's the 13.

23 MS. GOLDMAN: Is that sufficient? Okay.

24 BY MS. GOLDMAN:

25 Q How many of those 13 are gaining, or which

1 ones of those 13 are gaining streams?

2 A They all are.

3 Q Okay. How do you know?

4 A Because I've been to the streams during dry  
5 conditions at high elevations and during dry conditions  
6 at low elevations when they weren't being diverted and  
7 seen an increase in flow.

8 Q And when you made those observations, I assume  
9 you mean it was also not a flash flood event?

10 A Right. During dry conditions. Sorry.  
11 Climate and hydrologically, there was no runoff into the  
12 stream. So the observations were based on ground water  
13 gains. We also have USGS data on representative streams  
14 in this area that measure the -- quantified the gains and  
15 flow.

16 Q Just a moment, Your Honor. Thank you for your  
17 indulgence.

18 Earlier, Dr. Strauch, you mentioned I believe  
19 it was nine instream values; right?

20 A Yes. Defined by the state Water Code.

21 Q Thank you. Is one of those values -- did I  
22 get it right that -- sorry -- that one of those values  
23 include habitat for aquatic biota?

24 A Yes.

25 Q And if I understood you correctly, you are



1 mandated by the law to evaluate that type of data;  
2 correct?

3 A Yes.

4 MR. FRANKEL: Objection. Vague as to you.

5 THE COURT: Sustained.

6 MS. GOLDMAN: I'll clarify, Your Honor.

7 BY MS. GOLDMAN:

8 Q The CWRM. Not you individually.

9 MR. FRANKEL: Objection. Calling for a legal  
10 conclusion, lacks foundation.

11 THE COURT: I'll allow it as to this witness's  
12 understanding. I'm not going to take it as a binding  
13 legal decision.

14 THE WITNESS: So the Instream Use Protection  
15 Section is charged with carrying out the establishment of  
16 instream flow standards that protect the instream values  
17 as defined by the State Water Code. So as one of the  
18 nine instream values is aquatic habitat. We work closely  
19 with the Division of Aquatic Resources, Fish and  
20 Wildlife, and use all the available data to evaluate  
21 habitat for fresh water biota.

22 BY MS. GOLDMAN:

23 Q How is aquatic habitat quantified?

24 MR. FRANKEL: Objection. Lacks foundation,  
25 calling for expert testimony.

1 THE COURT: Well, you know, he raised that  
2 several times now and you mentioned it I think yesterday.  
3 So we might as well hash that out. Why do you think this  
4 qualifies -- I mean, if you're objecting to expert  
5 testimony because you're saying he's not an expert, or  
6 because opinions were not disclosed ahead of time? Or  
7 what are you saying?

8 MR. FRANKEL: Yes, Your Honor. No opinions  
9 were disclosed ahead of time.

10 THE COURT: Ms. Goldman, first I'll ask you to  
11 respond and then I'll ask the other counsel.

12 MS. GOLDMAN: Well, Your Honor, our position  
13 is that opinions from this particular lay witness should  
14 be allowed under Rule 701 because they are helpful to a  
15 clearer understanding of the witness's testimony and also  
16 the determination of facts at issue here.

17 We are in the weeds when it comes to talking  
18 about managing these watersheds and this water system.  
19 And this witness may be one of the -- may be able to help  
20 clarify those things to the Court, which he knows through  
21 the course of his regular job and from his personal  
22 experience in performing that job.

23 THE COURT: Was Dr. Strauch listed as a,  
24 quote, expert witness, closed quote?

25 MS. GOLDMAN: Yes, Your Honor. He was listed

1 both by plaintiff and by the State of Hawaii as an expert  
2 and as a lay witness, although there was ever any expert  
3 report generated, which is why today we offer him as a  
4 lay witness.

5 THE COURT: Was Dr. Strauch retained as an  
6 expert witness?

7 MS. GOLDMAN: No, Your Honor. Dr. Strauch is  
8 one of the employees of our client who we represent in  
9 this case. And he is testifying to knowledge he has and  
10 is required to have in order to remain employed in that  
11 position.

12 THE COURT: All right. I understand your  
13 position. Thank you. Mr. Schulmeister, you want to  
14 weigh in on this?

15 MR. SCHULMEISTER: Yeah. I would only note  
16 that, you know, again, that he was listed in the final --  
17 in the final naming of the plaintiff as an expert. And  
18 he was deposed as well. And I think his deposition may  
19 have been as a 30(b)(6), but I'm not sure. But I do  
20 recall attending his deposition.

21 THE COURT: Mr. Rowe?

22 MR. ROWE: Your Honor, I don't have any  
23 objection to the testimony and the questions.

24 THE COURT: All right. Back to you,  
25 Mr. Frankel?

1           MR. FRANKEL: You know, so there's a fuzzy  
2 line. And I believe we've crossed it with a question of  
3 how is this quantified? Now, his job at -- I don't know  
4 if he should be sitting here while we have this  
5 discussion.

6           THE COURT: That's a good point.

7           Dr. Strauch, I'm going to ask you to please  
8 leave the room. This is nothing personal. We do this  
9 all the time when we're about to have a legal argument  
10 involving a witness testimony. So thank you.

11           (Witness stepped away.)

12           MR. FRANKEL: So the question to him was  
13 regarding quantification I believe of habitat. Now, his  
14 job at the Water Commission is as a hydrologist. I think  
15 that was established. Hydrology and stream ecology,  
16 biology are two different things. He was asked about his  
17 work in stream biology when he was doing his postdoc  
18 work. But he's listed his job work as a hydrologist.

19           And the question about habitat quantification  
20 really gets to the heart of a big fight we had at the end  
21 of the day -- I can't even remember what day it was --  
22 when Mr. Higashi was testifying. And I -- that was  
23 what's attempting to occur here is to provide testimony  
24 which is not lay witness testimony, which is not what a  
25 hydrologist does.

1           And I would also -- I know you don't want to  
2     have us be doing voir dire with the witness, but Your  
3     Honor, he talked about visiting a number of these streams  
4     in July and August, one for the first time ever in  
5     August. And I think it's appropriate for you to ask him  
6     whether he visited those streams because of this  
7     litigation.

8           THE COURT: I was fully expecting you to do  
9     that.

10          MR. FRANKEL: But he's -- he's being asked  
11     opinions now. And I -- yeah. So anyway, I think my -- I  
12     hope my objection is clear.

13          THE COURT: It is. Does anyone have any case  
14     law they can offer the Court on this issue? 'Cause it is  
15     kind of interesting. I mean, I'm not sure I've ever been  
16     in a situation before where a witness was designated as  
17     both a lay witness and an expert witness and a 30(b)(6)  
18     witness and what that means in terms of required  
19     disclosures. Anybody have any case law?

20          MS. GOLDMAN: No case law, Your Honor. But if  
21     I may add one additional thing?

22          THE COURT: Time out. Let me see if  
23     Mr. Frankel's pau for now. Anything more you want to  
24     add, Mr. Frankel?

25          MR. FRANKEL: Well, I would say that the first

1 issue analytically is whether his opinion is expert  
2 opinion or not. I think that's the first question, and I  
3 think there is a bunch of case law on that, and I've  
4 stated it in a number of memos. No. 1, No. 2, No. 3. I  
5 can't keep track either. But there's a lot of case law  
6 about whether testimony constitutes expert opinion or  
7 not. I think analytically that's the first question.

8 And I think what's being asked was expert  
9 opinion. And that -- and because of that, it should have  
10 been disclosed.

11 THE COURT: Well, I mean, that's a good start  
12 but it's a little trickier than that because --

13 MS. GOLDMAN: -- he's statutorily required to  
14 collect this data.

15 THE COURT: Hold on. I'm still thinking out  
16 loud.

17 MS. GOLDMAN: I thought we were muted. My  
18 apologies, Your Honor.

19 THE COURT: It could have been a lot worse.  
20 You could have said something that would be really  
21 damning.

22 The reason why it's a little trickier than  
23 what you're suggesting, Mr. Frankel, is that -- I mean,  
24 we have witnesses all the time who are certainly talking  
25 about things which would be considered expert testimony,

1 but they're not expert witnesses. They're just regular  
2 folks working at a job that involves the application of  
3 technical knowledge and education and principles.

4 I mean, I once qualified a car mechanic as an  
5 expert witness. He never graduated from high school, but  
6 he was absolutely an expert when it came to cars.

7 So it's a very fuzzy situation where if  
8 someone in their normal day-to-day work is doing expert  
9 stuff, for lack of a better phrase, do you need to do an  
10 expert witness report for them to testify? I don't know.

11 MR. FRANKEL: Absolutely.

12 THE COURT: I don't know. We'd have so many  
13 expert reports in every case, it would get extremely  
14 expensive. I don't think that was the intention of the  
15 rule-makers. If everybody who was going to offer that  
16 kind of testimony had to do a report, that would be very  
17 tricky.

18 MR. FRANKEL: I mean, how long does the report  
19 have to be? I mean, I don't understand -- again, you  
20 know, I don't have a lot of -- the clients that I  
21 represent never have the kind of money to hire a hired  
22 gun expert. But generally an expert report doesn't need  
23 to be that long. An expert report --

24 THE COURT: Usually the expert as a starting  
25 point has to review a lot of the case file. Gets very

1 expensive very quickly, even for simple opinions. You  
2 don't want to put him up there and have him, Oh, no, I  
3 didn't read anything, I just came up with these ideas on  
4 my own. That doesn't fly very well. So there's a lot of  
5 prep that goes into it. And it's expensive. All right.

6 MR. FRANKEL: On the flip side --

7 THE COURT: I'm sorry. I want you to finish,  
8 so go ahead. And then we're going to go to Ms. Goldman  
9 again.

10 MR. FRANKEL: On the flip side of that, it is  
11 quite prejudicial to the Sierra Club to have essentially  
12 trial by ambush where, you know, they -- they recognize  
13 that he has expert opinion. That's -- that's what's  
14 going on. And yet they don't disclose that stuff. And I  
15 think they're -- it's game playing. It's just game  
16 playing.

17 THE COURT: But when you took his depo, did  
18 you ask him for all the opinions he was going to offer at  
19 trial?

20 MR. FRANKEL: It was a 30(b)(6) depo, Your  
21 Honor. What happened was we filed our pretrial  
22 statement, we set the 30(b)(6) notice. It was a sort of  
23 complicated one. There -- Amanda Weston had three  
24 different -- three or four different representatives of  
25 DLNR answer different sections. And the questions there



1 related to the information provided to the Board. It was  
2 not -- that particular deposition of him was not one  
3 where there was any kind of expert disclosure ahead of  
4 time. Yeah.

5 And I don't know if you want to look at the  
6 30(b)(6) notice, but --

7 THE COURT: Well, it sounds like -- I mean, I  
8 think if he was just giving opinions right now that were  
9 part of his 30(b)(6) depo, I'm pretty sure somebody would  
10 tell me that. But I'm assuming that they weren't.

11 MR. FRANKEL: Correct, correct.

12 THE COURT: Thank you.

13 Ms. Goldman, you're on.

14 MS. GOLDMAN: Thank you, Your Honor. Just a  
15 few points. First, this issue also came up when  
16 Mr. Volner was on the stand and it was being argued that  
17 Mr. Volner also could not give expert testimony. But it  
18 does not automatically convert to an expert witness  
19 subject to expert disclosure deadlines just because you  
20 have a technical job.

21 You're allowed to testify about your daily  
22 activities and about your work product and your effort  
23 all the same way even if you're a trained engineer or a  
24 garbage worker. You're just talking about your daily job  
25 without offering expert opinions, quote, unquote, as

1 defined by the Rules of Evidence. So as long as he stays  
2 within the work that he's doing as a part of his job, it  
3 should be admissible as lay testimony.

4 Now, I would argue or the State's position  
5 would be that we have laid the foundation, and if not, we  
6 will continue to every ten -- lay additional foundation  
7 to demonstrate that one of the nine instream values that  
8 Dr. Strauch is charged with balancing in developing IIFS,  
9 which is his job to do, includes a habitat for aquatic  
10 biota, which happens to get quantified in numerical form  
11 as a habitat unit. And that is what I was going to have  
12 Mr. or Dr. Strauch explain to the Court.

13 THE COURT: Okay. All right. Well, I want to  
14 take at least a few minutes' break to see if I can find  
15 anything in *Bowman* or anywhere else that might help me  
16 with this and invite you all to as well.

17 Mr. Rowe, anything you want to add?

18 MR. ROWE: No. I have nothing, Your Honor.

19 THE COURT: Anything else, Mr. Schulmeister?

20 MR. SCHULMEISTER: Not at this time.

21 THE COURT: Okay. Yes, Mr. Wynhoff?

22 MR. WYNHOFF: Housekeeping, Your Honor?

23 THE COURT: Yes, sir.

24 MR. WYNHOFF: I'm sorry. I see my colleague  
25 John Price is on here and I think Mr. Price might be just

1 watching because he's an attorney, he's got a case with  
2 you. Is that okay, Your Honor, or do you want me to  
3 contact him?

4 THE COURT: He's not going to be a witness in  
5 this case; right?

6 MR. WYNHOFF: No, Your Honor.

7 THE COURT: No. As far as I'm concerned, he's  
8 free to watch. I mean, this is still a public courtroom  
9 so --

10 MR. WYNHOFF: Thank you, Your Honor.

11 THE COURT: -- he should be able to watch it.

12 All right. Let's take a -- you know, actually  
13 this worked out well timing wise. It's time for our  
14 break anyway. It's 10 of 2:00. We'll resume at 2:05. I  
15 need a little extra time so I can do a little more work  
16 here. Okay? So see you all at 2:05. We're in recess.

17 (A recess was taken.)

18 THE COURT: We're on record. FTR?

19 THE CLERK: Yes.

20 THE COURT: All right. So during that break,  
21 I broke open my copy of *Bowman's Treatise*. I did hear  
22 about the case that Mr. Frankel sent through -- I heard  
23 about that through my law clerk. But I didn't rely on  
24 that one. But I did find a number of things that I want  
25 to put on the record and then rule.

1           *Bowman* makes clear that the defining  
2     distinction between lay testimony and expert opinions is  
3     personal knowledge. 'Cause with an expert opinion, you  
4     know, the expert can rely on hearsay and do all kinds of  
5     things that regular witnesses aren't able to do. So  
6     that's kind of a fork in the road when you're trying to  
7     figure out whether you're dealing with some kind of  
8     specialized lay testimony versus expert testimony.  
9     Personal knowledge.

10           And then one of the interesting points *Bowman*  
11     comments on is he said, It's important to make that  
12     distinction because one of the goals is to prevent a  
13     situation where an expert witness is just being  
14     repackaged or camouflaged as a lay witness.

15           And he actually cites a case. *American*  
16     *Broadcasting versus Kenai Air*. That's K-e-n-a-i. 67  
17     Haw. 219 at 229.

18           So he basically goes on to say, this is  
19     *Bowman*, that Rule 701 is really unavailable if expert  
20     testimony is what's being given. And the -- that often  
21     comes down in his view on whether you're dealing with  
22     scientific or technical or other specialized knowledge.  
23     So these generally are not in the ambit of lay opinions.  
24     They more fall into the ambit of expert opinions. And he  
25     cites *State v. Torres*, 122 Haw. 2 at page 29. And *Torres*

1 also makes that distinction between lay testimony and  
2 expert testimony being that of specialized knowledge.

3 So that's about as far as I got. But when I  
4 put all that together, I mean, certainly Dr. Strauch  
5 could be qualified as an expert witness. He obviously  
6 has the background and credentials and experience and so  
7 forth. I don't think that's an issue. But my  
8 understanding is the State at least at this point is  
9 offering him as a lay witness, not as an expert witness.

10 And based on that discussion I just gave you  
11 from *Bowman* and *Torres*, I don't think he fits. He's  
12 clearly talking about specialized and technical knowledge  
13 that would not fall within the ambit of Rule 701, at  
14 least as *Bowman* discusses it and as *State v. Torres*  
15 appears to guide.

16 So to the extent -- I mean, he can still  
17 certainly testify about things that are technical, but it  
18 has to be not as an expert witness. For instance, it  
19 cannot be based on hearsay.

20 So this might be a tricky swamp to navigate  
21 our way through. But the guiding principle is if what he  
22 is going to give is in fact an expert opinion, I'm not  
23 going to allow it 'cause it was not disclosed ahead of  
24 time. And my reading of *Bowman* and *State v. Torres*  
25 indicates that's the way it should go.

1                   So that's where we are. So you just have to  
2                   be very conscious of the way you phrase your questions so  
3                   as not to call upon him to rely on hearsay or other  
4                   matters which are exclusively within the ambit of an  
5                   expert witness.

6                   MR. FRANKEL: Your Honor.

7                   THE COURT: Yes.

8                   MR. FRANKEL: I think the foundation that's  
9                   been laid over a couple of hours, many, many questions,  
10                  part of his answers were based on his personal visits,  
11                  but a lot of his answers were looking through the  
12                  records, looking through the historic documents, that  
13                  sort of thing.

14                  And so it's going to be -- I don't see how  
15                  that can be untangled at this point. Ms. Goldman went  
16                  piece by piece, stream by stream, a lot of these things.  
17                  And he said, yes, I visited there, I looked at these  
18                  documents. So I think we're going to have a big problem.

19                  I also want to just for the record -- I know  
20                  the Court didn't have time to look at it, but I want to  
21                  make sure it's in the record that there's this recent  
22                  case, *State v. Jones*, which is a June 30th, 2020  
23                  decision. And there's a footnote that quotes the  
24                  *Torres* -- footnote 32 quotes the *Torres* decision at  
25                  length, but also adds to it from a Tenth Circuit Court of

1 appeals decision. So I just wanted to have that in the  
2 record. Thank you, Your Honor.

3 THE COURT: All right. So well, one, I -- you  
4 know, I disagree with you that there's some big  
5 entanglement with the testimony he's already given. I  
6 don't recall any opinions he's offered so far that relied  
7 on historical data. I think he was just testifying that  
8 he had information based on historical reports and so  
9 forth. But I don't recall him giving any specific  
10 testimony that relied on anything like that so far.

11 MR. FRANKEL: I agree. I agree. I'm just  
12 saying going forth, it's going to be -- in terms of him  
13 answering questions, we already know he has information  
14 from both sources. So it's going to be very hard with  
15 these questions coming up to untangle where that  
16 information comes from.

17 THE COURT: We'll just have to work our way  
18 through it. At least we've got some guide rules now.

19 All right. Everybody ready to go? All right.  
20 Let's bring the witness.

21 MS. GOLDMAN: Shall I get the witness?

22 THE COURT: Bring the witness back in please.

23 MR. FRANKEL: I'm not happy about this. What  
24 kind of consultation is happening with the witness right  
25 now?

1 THE COURT: Hold on. Ms. Goldman,  
2 Mr. Wynhoff. We are wondering if -- where you guys all  
3 disappeared with the witness.

4 MS. GOLDMAN: I beg your pardon, Your Honor.  
5 We were just trying to get the witness set back up in my  
6 office.

7 MR. FRANKEL: No. He was sitting down.

8 THE COURT: Mr. Frankel, just take it easy. I  
9 can handle this. Okay?

10 MS. GOLDMAN: In an abundance of caution, we  
11 can assure the Court that we won't have any conversations  
12 relevant to this on any breaks or anything --

13 THE COURT: All right.

14 MS. GOLDMAN: -- of that nature.

15 THE COURT: Understood. But he will be  
16 subject to cross on that. So we'll see what happens.

17 MR. FRANKEL: Your Honor, can we get some  
18 assurance about what just happened?

19 THE COURT: You can ask him when it's your  
20 turn. Right now it's her examination. Okay?

21 Go ahead.

22 MS. GOLDMAN: Thank you, Your Honor.

23 BY MS. GOLDMAN:

24 Q Earlier, Dr. Strauch -- thank you for waiting,  
25 by the way. Earlier we talked about the stream



1 restorations ordered by the CWRM and we talked about two  
2 different categories that we didn't go into some detail  
3 about. Now I'd like you to tell us what those things  
4 mean. What is H-90 flow?

5 A So as I had mentioned before, we have what are  
6 called flow duration curves. It is the magnitude of flow  
7 that occurs for a given length of time or across a given  
8 length of time. So a Q 50 flow represents the median  
9 flow for say a 30-year period, from 1980 to 2010, for  
10 example.

11 An H-90 flow, by contrast, is the magnitude of  
12 flow that supports 90 percent of the habitat. So in  
13 various studies for East Maui specifically, the concept  
14 of restoring a particular amount of habitat was brought  
15 up within the contested case process. And the amount of  
16 flow that is necessary to restore 90 percent of the  
17 habitat was calculated as 64 percent of median base flow.

18 So I had just mentioned median flow. We --  
19 that's related to total flow. Median total flow, which  
20 is the total amount of water available. Base flow is  
21 derived from a separate mathematical formula which  
22 isolates the base flow component or, as I mentioned  
23 earlier, the ground water component of total flow.

24 So 64 percent of median base flow provides 90  
25 percent of the habitat for a stream as determined by

1 previous studies.

2 Q Dr. Strauch, is that a certainty? Is that  
3 something that everyone in the world agrees on? Or is  
4 that in question somewhat?

5 MR. FRANKEL: Objection. Calls for  
6 speculation.

7 THE COURT: Everyone? Really? Everyone in  
8 the world?

9 MS. GOLDMAN: I can withdraw. I'll withdraw  
10 that question, Your Honor.

11 THE COURT: Rephrase please. Thank you.

12 BY MS. GOLDMAN:

13 Q Dr. Strauch, your job -- how -- okay. Sorry.  
14 Dr. Strauch, you are responsible for monitoring these  
15 streams; correct?

16 A For monitoring the hydrology of these streams.

17 Q And in so doing, you are charged with  
18 determining whether it appears as though the IIFS is  
19 being followed or not; correct?

20 A I evaluate whether the IIFS is being met.

21 Q And on a stream with an H-90 flow, what is  
22 your understanding of how -- of how an IIFS would be met?

23 A It -- so the H-90 flow is the magnitude of  
24 flow. It's still a number that represents a flow rate.  
25 So cubic feet per day, a million gallons -- or cubic feet

1 per second, million gallons per day, for example. The  
2 IIFS is still a quantifiable value that can be determined  
3 by our monitoring. So we evaluate the data that we  
4 gather at our monitoring stations, whether the IIFS is  
5 being met, whether it's an H-90 flow or other.

6 Q Earlier you mentioned that you consult with  
7 other divisions of the BLNR with respect to the data you  
8 monitor and collect from the East Maui watershed;  
9 correct?

10 A Correct. So in our capacity we -- CWRM staff  
11 coordinate with other agencies. So in East Maui  
12 specifically, we coordinate with Division of Aquatic  
13 Resources to monitor stream biota. And 2008 to 2011, I  
14 believe, was the range of years in which the coordination  
15 occurred.

16 And then we coordinated with them to develop a  
17 follow-up study to understand whether H-90 was an  
18 effective method for restoring the ecological value of  
19 the stream. So I had mentioned that the Water Code  
20 defines specific instream values. And the ecological --  
21 the aquatic ecology is one of those -- or the habitat for  
22 freshwater fish is one of those instream values.

23 Q And again, you are charged with balancing  
24 those instream values? You personally, and you  
25 personally in your professional capacity developing an

1 IIFS; correct?

2 MR. FRANKEL: Objection. Vague, compound,  
3 call calls for a legal conclusion.

4 THE COURT: Sustained.

5 THE WITNESS: May I finish?

6 MS. GOLDMAN: Yes, please. Oh, I apologize.  
7 You may not answer the question I just asked. I believe  
8 I may have cut you off. If you would like to continue  
9 that.

10 THE COURT: No. Time out. That question was  
11 objected to, so it cannot be answered. You need to  
12 rephrase it. I sustained.

13 THE WITNESS: She cut me off about the  
14 previous.

15 THE COURT: Let's just start over. Ask a  
16 question. Thank you.

17 THE WITNESS: So I was talking about the  
18 Division of Aquatic Resources.

19 BY MS. GOLDMAN:

20 Q Okay. What -- you mentioned two different  
21 collaborations, studies between DAR and CWRM; is that  
22 right?

23 A Correct.

24 Q Okay. The second one -- the first one you  
25 gave us some years. What about the second one? When was

1 that taking place?

2 A So as part of the decision and order, the  
3 Water Commission requested, they don't have authority  
4 over the Division of Aquatic Resources. The Water  
5 Commission requested in their decision and order that the  
6 Commission staff work with the Division of Aquatic  
7 Resources to evaluate whether the magnitude of flow that  
8 supports 90 percent of the habitat -- that quantity  
9 actually does support the ecosystem values that it was  
10 modelled to support. So the H-90 concept is a  
11 mathematical formula that is -- was developed by USGS  
12 using actual data from East Maui streams and tested  
13 across I believe six different streams.

14 But it has never been put into practice. And  
15 that is what the Commission's decision and order in 2018  
16 when they established H-90 flows for two particular  
17 streams, Kopiliula and East Wailuaiki. They established  
18 fully restored streams in neighboring watersheds --  
19 Waiohue and West Wailuaiki -- in order to test the  
20 effectiveness of the H-90 flow.

21 So as part of my job, I am coordinating with  
22 the Division of Aquatic Resources to evaluate -- to  
23 gather data and to evaluate the effectiveness of that  
24 management decision.

25 Q When you say expected use of H-90 flow, what

1 do you mean by that?

2 MR. FRANKEL: Objection to the extent it's  
3 calling for expert opinion.

4 THE COURT: I think that question is just too  
5 general, Ms. Goldman. I don't understand it. Please  
6 rephrase. Thank you.

7 BY MS. GOLDMAN:

8 Q You testified that you and -- that CWRM and  
9 DAR are consulting on this in order to determine the  
10 effectiveness of the H-90 flow.

11 A So --

12 Q What did you mean by that?

13 A I --

14 THE COURT: Time out. Please stop. Stop.  
15 Stop. Okay? We really have to take this one step at a  
16 time, folks. You asked a question, he started to answer,  
17 and then you started another question. Part of it is  
18 because of the video delay. I get it. So let's all just  
19 slow down a little bit and make sure we go one, then the  
20 other, then the other, then the other. Okay? That will  
21 save us a lot of trouble. Okay. So the question -- the  
22 question was -- could you please scroll back to the  
23 question.

24 The question is: You testified that you  
25 and -- that CWRM and DAR are consulting on this in order

1 to determine the effectiveness of the H-90 flow. What  
2 did you mean by that? That was the question.

3 Mr. Frankel, go ahead.

4 MR. FRANKEL: And I'm going to object. It's  
5 calling for expert testimony.

6 THE COURT: Ms. Goldman?

7 MS. GOLDMAN: Your Honor, it's asking for  
8 clarification of something that this witness just  
9 testified to that is well within his personal knowledge  
10 and is something that he is required to do as part of his  
11 job.

12 THE COURT: Okay. Well, my problem with the  
13 question is again, it's very general. The consulting to  
14 determine the effectiveness of the H-90 flow -- what did  
15 you mean by that? What exactly do you mean? Are you  
16 talking about the way they're consulting? Are you  
17 talking about H-90 flow? What are we talking about?

18 MS. GOLDMAN: No, Your Honor. I was  
19 attempting to get the witness to clarify what he meant by  
20 effectiveness of the H-90 flow. That is what they are  
21 measuring. He personally is involved in measuring and  
22 determining that. And I would like him to explain what  
23 that means.

24 THE COURT: The problem is there's an expert  
25 testimony objection. And this clearly goes right into

1       that area that *Torres* talked about where it could rely on  
2       hearsay evidence. So you can ask him how he defines  
3       effectiveness as far as I'm concerned, but not how --  
4       there's some kind of group discussion with CWRM and DAR  
5       that reaches some kind of official conclusion about it.  
6       That would be an opinion. Okay?

7               MR. FRANKEL: And Your Honor, he already has  
8       testified in terms of all of this is based on  
9       coordinating with the Division of Aquatic Resources. So  
10      he's already established that that is where the  
11      information is coming from. It's not -- this is -- there  
12      is a real --

13             THE COURT: Mr. Frankel, we are never going to  
14      finish this trial if every time I make a ruling we have  
15      another conversation. I made a ruling. It was in your  
16      favor in fact. So just be quiet for a minute and wait  
17      for the next question.

18             MR. FRANKEL: Sorry.

19             THE COURT: Okay. Go ahead, Ms. Goldman.

20      BY MS. GOLDMAN:

21             Q       And Dr. Strauch, you testified that you  
22      personally are involved in this study. What is your  
23      personal -- what is your individual role in this study?

24             A       So I am coordinating the outcomes that the  
25      Water Commission would like to see. And that includes



1 things like the occupancy of the stream by particular  
2 species as determined by various methods and the  
3 reproductive potential of the species that we are of  
4 interest that will occupy or should occupy the stream  
5 based on the model. And --

6 Q May I -- may I ask you to please clarify. You  
7 said that you were coordinating or consulting. What does  
8 that mean? I want to know what your personal individual  
9 role is please.

10 A So I helped determine or my personal role is  
11 to lead the determination of the outcomes we want from  
12 the study.

13 Q How do you determine the outcome?

14 MR. FRANKEL: Objection, Your Honor. Calling  
15 for expert testimony.

16 THE COURT: She's asking for the process. How  
17 does he? She hasn't asked him what is it yet.

18 MR. FRANKEL: I --

19 THE COURT: Overruled. Go ahead and answer,  
20 Doctor.

21 THE WITNESS: So the outcomes that we want to  
22 determine are, does the stream provide sufficient habitat  
23 to support a particular density of native biota or the  
24 presence or absence of particular species, the  
25 reproductive potential of the biota that do occupy it.

1           We want to determine if the stream is a source  
2   for sink population, for example, as well as how  
3   recruitment is being effected by the recruitment to the  
4   stream by juveniles is being effected by the H-90 flow  
5   versus a fully restored flow. There are things like the  
6   amount of habitat that is available that we're trying to  
7   determine, the quality of the habitat. These are things  
8   that we want to be determined.

9   BY MS. GOLDMAN:

10         Q         And --

11                 MR. FRANKEL: Your Honor, move to strike  
12   wherever he says "we." The question I think was supposed  
13   to be on personal, and his answer is about what we are  
14   doing.

15                 THE COURT: Objection overruled.

16                 MS. GOLDMAN: Absolutely --

17                 THE COURT: Overruled. Ask your next  
18   question.

19                 MS. GOLDMAN: Thank you.

20   BY MS. GOLDMAN:

21         Q         Why is that something -- in your -- as I  
22   understand it, why is that something you as a hydrologist  
23   are needed for? And what is your role in that?

24         A         I evaluate the available data and draw  
25   conclusions that the Commission then makes for

1 management. So it is my job to evaluate whether past  
2 Commission decisions are meeting the goals of the  
3 management decision, and that includes things like  
4 improving habitat for native biota, protecting judicial  
5 and customary practices. All the things that are defined  
6 as instream values is my role to evaluate the  
7 effectiveness of the management decision.

8 Q And you said that you evaluate the available  
9 data. Can you describe this data, what you're talking  
10 about?

11 MR. FRANKEL: Objection. Expert testimony.

12 THE COURT: Well, if we ever get there, I  
13 might agree with you. But I'm asking you to rephrase.  
14 That's just a very general question, Ms. Goldman. And  
15 we're in this situation -- we're all aware we're kind of  
16 walking in a minefield right now. It's going to help a  
17 lot if you ask targeted questions instead of general  
18 ones. So thank you.

19 BY MS. GOLDMAN:

20 Q Okay. So you just testified that you evaluate  
21 the available data. What form does that data take?

22 A It can be things like biological studies,  
23 hydrological studies, onsite testimony from key  
24 informants. It takes the form of quantitative and  
25 qualitative data.

1 Q What -- please elaborate on what -- how you  
2 evaluate that.

3 MR. FRANKEL: Objection. Form of the  
4 question.

5 THE COURT: Too vague. Rephrase. I don't  
6 even know what you mean by that.

7 BY MS. GOLDMAN:

8 Q Okay. Dr. Strauch.

9 THE COURT: Go ahead. Sorry.

10 MS. GOLDMAN: That's okay.

11 BY MS. GOLDMAN:

12 Q Dr. Strauch, you testified that you evaluate  
13 the available data. What's evaluate in that sentence?  
14 What do you mean?

15 MR. FRANKEL: Objection. Same objections,  
16 Your Honor.

17 THE COURT: Overruled. Again, right now she's  
18 just asking him about a process. It's not -- Doctor,  
19 she's not asking you to give any opinions at this point,  
20 so please do not offer those. Thank you. Go ahead.

21 THE WITNESS: So in some ways or depending on  
22 the location or the management decision, I will do a  
23 field site inspection. I will gather data in the field.  
24 I will take measurements. I will do a survey. In other  
25 situations, I will interview people on the ground. I

1 will meet with the community.

2 Is that sufficient to answer?

3 BY MS. GOLDMAN:

4 Q Yes. Thank you, Dr. Strauch. So you take  
5 measurements. What are you measuring?

6 A It depends on the data. So sometimes I'm  
7 measuring the width of the stream, the depths of water,  
8 the velocity through it, the substrate in it, the  
9 occupancy of a particular species, the temperature or  
10 water quality parameters.

11 Q And what is your personal understanding of why  
12 you are collecting that data?

13 A Because --

14 Q I'm sorry. I'll withdraw that. What is your  
15 personal understanding of what that data measures?

16 A That data tells us what is happening in the  
17 stream.

18 Q Please tell us.

19 A Right. The -- lack of better analogy, it's  
20 the boots on the ground. There is only so much you can  
21 gather from historic records, but we try and conduct as  
22 much field work as possible. I personally lead the  
23 majority of the field work that gather these types of  
24 data that relate to instream values. And that data then  
25 gets communicated within the Commission and to the

1 Commission.

2 Q What forms does that field work take?

3 A I don't know what you mean by forms.

4 Q You said that you personally lead the field  
5 work. Can you give us an example of -- of --

6 A Much of the time I am the one doing the actual  
7 data collection, doing the field work, whether it is  
8 getting in the stream or meeting with people,  
9 stakeholders, that sort of thing. Occasionally or in the  
10 past we have -- the Water Commission has collaborated  
11 with other entities and Water Commission staff, including  
12 myself, conduct site visits to gather data.

13 Prior to my employment with the Water  
14 Commission, I would -- more academic studies of these  
15 streams in which we gathered habitat, data, hydrological  
16 data, that sort of thing. Biological data.

17 Q Thank you, Dr. Strauch. I'm not going to wade  
18 into that minefield quite yet. Can you describe for us a  
19 site visit for this purpose? Just describe a site visit  
20 for this purpose.

21 A It can be as simple as getting out of a car,  
22 walking down or hiking to the stream, using equipment in  
23 the stream, snorkel surveying in the stream, taking  
24 measurements at the stream. It might be more cumbersome  
25 if the access is not so straightforward. It might

1       involve much lengthy hiking and collaboration for access.

2           Q       Okay.

3           A       Worst case scenario involves a helicopter and  
4       a lot more in terms of emergency preparedness. The --  
5       some of these sites are extremely remote and dangerous to  
6       get to. So the -- what we do there is dependent on the  
7       question we're trying to answer and the data that we're  
8       trying to collect.

9           Q       And how is the data that you are trying to  
10      collect stored?

11          A       We have various state servers. We publish  
12      data on our website. We are working on a geoportal. I  
13      think I alluded to that. Some of the data gets -- so  
14      there's a biological database that the Division of  
15      Aquatic Resources maintains that we submit data to.

16          Q       Do you submit data to it personally?

17          A       Yes. Sorry.

18          Q       Please phrase the rest of your answers in  
19      those terms.

20          A       I submit the data. I publish the data through  
21      peer review journals. We -- I produce what we call fact  
22      sheets, which are summaries of information. I  
23      communicate data to the Commission.

24          Q       How do you -- how do you summarize this  
25      information?

1           A           Using statistics. Do you want me to  
2 elaborate?

3           Q           Yes.

4           A           I mean, I can teach a course in Statistics if  
5 you want.

6           Q           Not a course in Statistics. Thank you,  
7 Dr. Strauch. I'm just trying to get a sense of what  
8 exactly this entails. Your --

9           A           Some of the data require a QA/QC, quality  
10 control, quality assurance. Some of the data require  
11 more elaborate statistical processing. We -- I looked at  
12 body condition health of a species, for example. And  
13 body condition requires various dimensional measurements  
14 of the animal, of the organism. And those actually have  
15 to be converted based on our structure of the animal to a  
16 biomass, a wet weight biomass. So that is a process that  
17 happens within a spreadsheet.

18                   The density of an individual in a point survey  
19 can be converted to a stream density based on the area of  
20 known habitat that we -- that I measure while at the site  
21 and then can be or is modelled based on the hydrological  
22 data available.

23           Q           Okay. Dr. Strauch, you said that you measure  
24 the area of known habitat when you are at the site. How  
25 do you do that?



1           MR. FRANKEL:  Objection, Your Honor.  We're  
2   getting expert testimony.

3           THE COURT:  She's just asking him how he  
4   measures, so --

5           MR. FRANKEL:  I --

6           THE COURT:  I don't think that calls for  
7   expert testimony.

8           MR. FRANKEL:  Well, you'll see what's about to  
9   happen.

10          THE COURT:  I have a pretty good idea what's  
11   going to happen, but there's nothing I can do about that  
12   right now.

13          Go ahead and answer.

14          THE WITNESS:  So for a particular reach, I  
15   will measure the width of the reach at multiple  
16   locations, the depth of flow across that width at  
17   multiple locations, the velocity of flow across that  
18   width at multiple locations, and the substrate, the  
19   proportion of substrate occupied in that width at  
20   multiple locations.

21   BY MS. GOLDMAN:

22         Q           Okay.  And how does that tell you the area of  
23   known habitat, which is what you just testified that you  
24   are measuring?

25          MR. FRANKEL:  Objection.  That's calling for

1 expert opinion.

2 THE COURT: Sustained.

3 BY MS. GOLDMAN:

4 Q Have you personally ever done a survey of  
5 aquatic biota in the East Maui watershed?

6 A Yes.

7 Q Have you personally done that since you have  
8 been employed with CWRM?

9 A Yes. So I --

10 Q Please tell us about --

11 A -- surveyed a number of East Maui streams in  
12 2017 as a follow-up to prior surveys. And I quantified  
13 the number of individual species in known transects and  
14 they then quantified the amount of habitat for those  
15 species in those same transects or in those same reaches.

16 Q How do you -- you said you quantified the  
17 amount of habitat?

18 A Yes.

19 Q How do you quantify that?

20 MR. FRANKEL: Objection, Your Honor. Expert  
21 testimony and/or irrelevant.

22 THE COURT: I mean, this is just so general,  
23 Ms. Goldman. I mean, I don't even know if we're talking  
24 about -- I assume we're talking about East Maui, but I  
25 have no idea from the question. Sustained.

1 BY MS. GOLDMAN:

2 Q Okay. Mr. Strauch, you just testified that  
3 you quantify habitat; correct?

4 A Yes.

5 Q What unit do you measure it in?

6 MR. FRANKEL: Objection, Your Honor. This  
7 is -- this really is expert testimony.

8 THE COURT: Okay. We're -- the objection is  
9 sustained.

10 We've been going quite a while, so we're going  
11 to take our last -- maybe not our last, but we're going  
12 to take our next break. It's a couple minutes before  
13 3:00. We're going to break until 3:10. And I'm going to  
14 ask counsel, Ms. Goldman, Mr. Wynhoff, to give some real  
15 thought to where this is going. 'Cause if he's not going  
16 to be allowed to give the ultimate opinions, I'm really  
17 not sure why we're spending so much time building a  
18 foundation to give the opinion.

19 MS. GOLDMAN: Your Honor, if I may --

20 THE COURT: You may.

21 MS. GOLDMAN: -- it will become very clear to  
22 you why this is relevant and going somewhere.

23 THE COURT: Okay. I'm being patient.

24 Mr. Frankel, go ahead.

25 MR. FRANKEL: I would like to request that you

1       instruct counsel, I'm sorry, not to be talking to the  
2       witness at all in this break. I'm sorry.

3               MS. GOLDMAN: I just offered that.

4               THE COURT: I am going to rely on counsel's  
5       professionalism. If you decide you want to dig into that  
6       with the witness, you can.

7               One thing. Mr. Frankel, I wanted to apologize  
8       to you for saying be quiet. That was not -- that was  
9       intemperate of me. I should have just said, you know,  
10      wait for the next question. So I apologize. And I won't  
11      do that again.

12              Okay. We're in recess till 3:10. Thank you.

13              (A recess was taken.)

14              THE COURT: All right. Back on record. FTR  
15      on?

16              THE CLERK: Yes, it is, Judge.

17              THE COURT: All right. Ms. Goldman.

18      BY MS. GOLDMAN:

19              Q        Dr. Strauch, did you testify before the BLNR  
20      or Board of Land and Natural Resources at its meeting on  
21      November 9, 2018?

22              A        I did.

23              Q        What was the nature of that testimony?

24              A        The Board asked me to provide information  
25      about the 2018 Commission decision and order regarding

1 the East Maui streams.

2 Q Did you offer an opinion to the Board at any  
3 time during that testimony?

4 A I would have to refer to my testimony. I  
5 don't --

6 Q That's okay. Okay. So would it refresh your  
7 recollection if you could have a chance to look at it  
8 briefly?

9 MR. FRANKEL: Objection, Your Honor. The  
10 testimony is already in evidence with the transcript.

11 THE COURT: Yeah. Well, if we already have  
12 the transcript, why do we want his recollection of what  
13 it was? I mean, no offense, Dr. Strauch. It's just an  
14 evidentiary thing. Nothing personal.

15 MS. GOLDMAN: Your Honor, this witness  
16 testified that the 27 streams in the licensed area were  
17 the most important. I would like to explain that he told  
18 the Board that.

19 For the record, it does not matter whether or  
20 not -- I'm not offering any of this for the truth of the  
21 statement. I am offering this for what the Board was on  
22 notice of, just on the listener. So it is not going to  
23 come within hearsay.

24 THE COURT: That will be established by the  
25 transcript. Objection is sustained.

1 BY MS. GOLDMAN:

2 Q Okay. During the -- that meeting, do you  
3 remember if -- do you -- were you asked about the streams  
4 for which new IIFS was not set in 2018?

5 MR. FRANKEL: Objection. Cumulative. The  
6 transcript's in the record.

7 THE COURT: Sustained. Ms. Goldman, just to  
8 save time, if you're going to ask him about anything in  
9 the transcript, I'm going to sustain the objection. If  
10 he said something to the Board that's not in the  
11 transcript, then we can have a separate discussion about  
12 that. But --

13 MS. GOLDMAN: Your Honor, I would like to ask  
14 the witness what he meant by a specific statement that he  
15 said that is in the transcript. I'm unsure of how to  
16 bring that into this conversation without either  
17 refreshing the witness's recollection as to what he said  
18 or reading a line that's already in evidence.

19 THE COURT: What's the relevance of what he  
20 meant? Doesn't it matter what he said to the Board?

21 MS. GOLDMAN: Your Honor, I don't believe so.  
22 I believe this entire case is premised on the idea that  
23 the Board somehow did not collect enough information or  
24 ask enough questions. I think it is entirely relevant to  
25 show what kinds of opinions were conveyed to the Board

1 and to demonstrate why the Board may have found them to  
2 be credible.

3 THE COURT: Mr. Frankel?

4 MR. FRANKEL: The fact the information was  
5 conveyed to the Board is already in evidence. The reason  
6 why it was conveyed is not relevant to this case. It's  
7 the Board's decision, and that is reflected in the  
8 minutes and in the transcript. So objection.

9 THE COURT: Objection is sustained,  
10 Ms. Goldman. If you're asking him to testify about what  
11 he meant, I'm finding -- I find that that's interesting  
12 but irrelevant. What matters is what the Board heard and  
13 what the Board did. The objection is sustained.

14 MS. GOLDMAN: Respectfully, Your Honor, may I  
15 have just a moment to confer with my co counsel?

16 THE COURT: Yes, you may. That's fine. We're  
17 off record.

18 (A recess was taken.)

19 THE COURT: Back on record. FTR on?

20 THE CLERK: Yes.

21 THE COURT: Thank you. Ms. Goldman, go ahead.

22 BY MS. GOLDMAN:

23 Q Dr. Strauch, did you personally make a  
24 determination regarding whether the 13 streams we've  
25 spoken about today as the 13 streams are important?

1           MR. FRANKEL:  Objection, Your Honor.  Calling  
2   for expert opinion.

3           MS. GOLDMAN:  I'm asking within the witness's  
4   personal capacity.  What did he do.

5           THE COURT:  Well, the question is, are they  
6   important.  I don't understand what you mean by that, so  
7   you're going to need to rephrase.

8           MS. GOLDMAN:  The question was whether --

9           THE COURT:  All streams are important.  I  
10   think everybody in this room would agree on that.  So --  
11   I'm not sure that's what you were trying to get.  Some  
12   streams are more important than others, but they're all  
13   important.

14   BY MS. GOLDMAN:

15         Q           Did you make a determination as to the  
16   relative importance of these 13 streams personally?  Do  
17   you personally --

18           MR. FRANKEL:  Objection.  It's calling for  
19   expert opinion.  I suppose it was just a yes-or-no  
20   answer.  But beyond that, it's an expert opinion.

21           THE COURT:  I'm going to allow it, but I'm not  
22   sure how much farther it's going to go.  You may answer  
23   yes or no.

24           THE WITNESS:  Yes.

25   BY MS. GOLDMAN:



1           Q           What work did you personally do to make that  
2           determination?

3           A           In my capacity as the Instream Use Protection  
4           Section chief or head, I determine the prioritization of  
5           determining interim instream flow standards for the State  
6           of Hawaii. And that prioritization is based on other  
7           literature such as the Hawaii Stream Assessment that  
8           determines candidate streams for protection. So we  
9           prior -- I prioritize for the Commission the next stream  
10          that I want to -- that I will establish an interim  
11          instream flow standard for based on the relevant data.

12                   THE COURT: She was muted.

13          BY MS. GOLDMAN:

14          Q           Did you tell that information to the Board?

15                   MR. FRANKEL: Objection. Cumulative.  
16          Transcript's in.

17                   THE COURT: If you're talking about the Board  
18          meeting, sustained. And when I say the Board meeting, I  
19          mean the one that we already have the transcript for.

20                   MS. GOLDMAN: Sure.

21          BY MS. GOLDMAN:

22          Q           Okay. I would to call your attention to an  
23          exhibit that has already been entered into evidence.  
24          That would be Trial Exhibit 58.

25                   THE COURT: Is that Plaintiff's 5-8?

1 MS. GOLDMAN: Yes, Your Honor.

2 THE COURT: Thank you.

3 MR. FRANKEL: I'm sorry. Sierra Club's  
4 Exhibit 58?

5 MS. GOLDMAN: Yes.

6 THE COURT: I've got it. Dr. Strauch, do you  
7 have it there?

8 THE WITNESS: Is it a photo?

9 THE COURT: Yes.

10 THE WITNESS: Okay. Yeah.

11 BY MS. GOLDMAN:

12 Q Okay.

13 A 58. Hoolawa nui.

14 THE COURT: Yes.

15 BY MS. GOLDMAN:

16 Q What is this a photo of, or do you recognize  
17 the photo, Dr. Strauch?

18 A Yes. It is a photo of a ditch with a pipe  
19 coming into a stilling well on the left-hand side.

20 Q Okay. It was testified in this case that this  
21 is a photograph of Hoolawa Stream. Is that correct to  
22 your knowledge?

23 A No.

24 MR. FRANKEL: Objection in terms of reciting  
25 prior testimony to this witness.

1 THE COURT: Yeah. That's usually not how we  
2 like to do things, but I know you're just trying to  
3 transition him to it. We have his answer no.

4 BY MS. GOLDMAN:

5 Q How can you tell that this is a ditch?

6 A Because it has -- it's a -- well, it's not  
7 Hoolawa Stream because Hoolawa Stream is a wide -- has  
8 much wider widths and the banks are not shaped in this  
9 way. And this is a stilling well on the left-hand side  
10 of the photo, which would not have been built into a  
11 stream in this manner. This is not a stream stilling  
12 well. This is a ditch stilling well.

13 Q What about this photograph tells you that it's  
14 a stilling well?

15 A It is a concrete cylinder approximately 5 feet  
16 tall, maybe 6 feet tall. There is a wooden -- the base  
17 of a wooden box, which would have housed the monitoring  
18 equipment for the gaging station. And then the pipe  
19 enters the stilling well at the base, which provides for  
20 the water.

21 Q Thank you. Let's talk now about Trial Exhibit  
22 54. That's Plaintiff's Exhibit 54, which is also a  
23 photograph that was entered into evidence.

24 A Okay. It's another --

25 Q Do you recognize what is depicted in this

1 photograph?

2 A This is the Waialoa ditch intake on Hoolawa  
3 nui.

4 Q How do you know?

5 A Because I've been there many times.

6 Q Which direction are we looking?

7 A Up stream. Do you need the cardinal  
8 direction? Okay.

9 Q Which direction is the water flowing in the  
10 photo?

11 A From -- it's kind of making an S shape. But  
12 if you trace it up from the grate, it moves slightly up  
13 and then to the right and then to the left. So it's --  
14 if you start at the top left of the photograph and you go  
15 across at like a 30 degree angle to about the halfway  
16 point, and then you zag back to the center -- I don't  
17 know how to best describe this visually, but it's making  
18 like an S shape.

19 Q Okay. Is this -- in your experience, is this  
20 what this diversion at the Waialoa Ditch on Hoolawa nui  
21 looks like usually?

22 A When you say usually, during low flow or base  
23 flow conditions, yes.

24 Q Does it always look like this?

25 A No. During high flow conditions, water will

1 overflow as well as the wing walls that you see -- the  
2 concrete walls that you see. The water will flow down to  
3 the left or from left to right and over the intake.

4 You don't see it from this photograph, but in  
5 the bottom right-hand corner would be kind of a 120-foot  
6 drop.

7 Q Okay. Let's -- actually before we turn to the  
8 next photo, regarding the appearance of the water in this  
9 photo, is this typically what the water looks like at  
10 this diversion on this stream?

11 A Each of the times I've visited the stream, the  
12 water's appeared turbid or cloudy, which is a condition  
13 of this stream. Yes, this is typical.

14 Q To your knowledge as the individual charged  
15 with monitoring and maintaining diversions, is this  
16 stream diverted farther mauka of here within that --  
17 (inaudible) -- area. I will clarify.

18 A I will clarify that I don't -- I'm not charged  
19 with maintaining the diversion but with documenting it.  
20 There are no other East Maui Irrigation diversions within  
21 the licensed area mauka of this one.

22 Q Okay. Well, let's turn to Trial Exhibit 55  
23 please. Plaintiff's 55.

24 A Okay.

25 Q Okay. Do you recognize this photo?

1           A           This is almost the same location, just a  
2           different direction of the photo from the previous --  
3           from 54.

4           Q           Can you explain where we're looking in  
5           relation to that previous photo?

6           A           We're looking makai. Do you want the cardinal  
7           direction?

8           Q           No. Thank you. Makai is fine. What -- what  
9           is -- what is this structure made of? What is this  
10          structure, what we're looking at?

11          A           We're looking at a control gate, wrought iron,  
12          I think, that is used to lift up and release water and  
13          sluice material that gets caught in the diversion.

14          Q           And is this -- is the pool of water that's  
15          below -- is that also Hoolawa nui Stream?

16          A           Yes.

17          Q           Is this a waterfall or -- it looks like a  
18          different elevation. Can you just explain?

19          A           Like I said earlier, we -- the photograph is  
20          taken at the top of about a 100-foot waterfall. We are  
21          now looking down the stream over the lip of the  
22          waterfall. So the pool -- the plunge flow at the base of  
23          the waterfall, yes, is at a different elevation.

24          Q           Is this waterfall -- to your knowledge, is  
25          this waterfall naturally occurring or is it something

1 that this diversion structure created?

2 MR. FRANKEL: Objection. Calls for  
3 speculation, expert opinion.

4 THE COURT: I think if you can answer based on  
5 your own personal observations and knowledge, you can  
6 answer. But if you have to rely on some textbook or  
7 study that you've read from somewhere else, then no.  
8 Thank you. Go ahead.

9 THE WITNESS: So the -- I know that the  
10 Waialoa Ditch was dug at a specific elevation above -- in  
11 most cases above the -- it's called the knickpoint in the  
12 stream channel where the watershed is being eroded. And  
13 this knickpoint is developed by the geology or is a  
14 factor of the geology. So this would have been a  
15 naturally occurring waterfall that the ditch diversion  
16 was built into.

17 BY MS. GOLDMAN:

18 Q And from your own observations, this naturally  
19 occurring waterfall, can you describe it more? Like the  
20 size and that sort of thing?

21 A It's about -- I would say about 100 feet tall.  
22 It's made of basalt, like the bedrock. It's -- the width  
23 of the stream at the top where the water is flowing would  
24 be flowing over it if the diversion was not there. It's  
25 about 6 to 10 feet wide. The plunge flow itself is about

1 120 feet wide, give or take.

2 Is that a sufficient description?

3 Q Yes, Dr. Strauch. Thank you.

4 Do you see an overhanging lip in this photo?

5 A No. You can't determine that from this photo.

6 Q Have you observed an overhanging lip in  
7 person?

8 A Yes.

9 Q What's an overhanging lip?

10 A So a lot of the stream courses in young lava  
11 flows in East Maui and on the Big Island, but in East  
12 Maui in particular, which is a little bit older in  
13 geologic age -- the stream courses have eroded through  
14 former lava tubes, areas that are more easily eroded.

15 And in the development of the stream channel  
16 at places like where you see a plunge pool form is from  
17 the underlying geology that the lava tube in its  
18 formation is obviously different from the formation of  
19 the stream channel. And the lava tube conveyed lava and  
20 -- or magma and in that development, it created in some  
21 instances what are called overhanging lips. So it's  
22 basically basalt that has hardened, and as the stream  
23 channel is formed through these string courses, the  
24 overhang lip remains.

25 MR. FRANKEL: Move to strike, Your Honor.



1 Nonresponsive and expert opinion.

2 THE COURT: Overruled.

3 BY MS. GOLDMAN:

4 Q Looking down -- oh, are we looking makai in  
5 this photo?

6 THE COURT: Yes. He already testified to  
7 that.

8 MS. GOLDMAN: Thank you.

9 BY MS. GOLDMAN:

10 Q What stands out to you in this photo?

11 A Two things. The substrate is primarily sharp  
12 basalt and boulder. And by sharp, I mean rough edges and  
13 jagged, not smooth.

14 And then second is that the riparian  
15 vegetation is dominated by nonnative species, primarily  
16 strawberry guava.

17 Q I would have said it looks dry like looking  
18 makai. Does it look that way to you?

19 A The stream bank or the stream channel? The  
20 stream channel is -- up to the plunge pool is full of  
21 water. And then downstream of the plunge pool, the  
22 stream channel looks dry.

23 Q To your knowledge, does this stream channel  
24 have any other diversions on it?

25 A It does.

1 Q Makai?

2 A It does at three more locations. No. Four  
3 more locations. Sorry.

4 Q In your experience out in the field, would you  
5 expect that this stream channel would be dry at all of  
6 those makai diversions up here under these conditions?

7 MR. FRANKEL: Objection. Speculation.

8 THE COURT: You mean under the conditions  
9 we're seeing in this photograph with this stream? Would  
10 he expect the three or four diversions downstream to all  
11 be dry? Is that the question?

12 MS. GOLDMAN: (Ms. Goldman nodded.)

13 THE COURT: All right. You can answer that,  
14 if you know.

15 THE WITNESS: So I have been there during such  
16 conditions, during very low flows. And the stream  
17 channel is a gaining stream. So there is water diverted  
18 at lower elevations within the stream channel. So  
19 there's flow that is diverted.

20 BY MS. GOLDMAN:

21 Q You noted a few moments ago that the water  
22 appeared cloudy. What does that mean to you?

23 MR. FRANKEL: Objection. Irrelevant, vague.

24 THE COURT: Well, he's a hydrologist. I'm  
25 going to allow it. Overruled.

1 THE WITNESS: So cloudy water, meaning high  
2 turbidity, impacts the quality of the habitat. So cloudy  
3 water prevents the growth of algae, which is a primary  
4 food source.

5 BY MS. GOLDMAN:

6 Q Thank you. I just wanted to stop you there  
7 and make sure that you're telling us what you -- what  
8 your understanding is of why you think cloudiness is  
9 significant in some way.

10 A So I've spent a lot of time studying water  
11 quality. And I have seen that cloudy water prohibits the  
12 growth of algae, which is the primary food source in  
13 aquatic ecosystems.

14 Q Let's turn to Trial Exhibit 56 please, if you  
15 will. It was also received into evidence in this trial.  
16 Do you have it up, Dr. Strauch?

17 A Yes.

18 Q Do you recognize this photo?

19 A Yes.

20 Q How do you recognize it?

21 A I've been to that location and seen that pipe.

22 Q And where is this location?

23 A It's on Hoolawa nui above the Waialoa Ditch  
24 intake.

25 Q And what is this pipe?

1           A           It's a pipe that conveys spring flow slightly  
2 upslope from the stream channel down to the stream  
3 channel so that it may be diverted at the Waiialoa Ditch  
4 intake.

5           Q           To your knowledge, is this pipe related to one  
6 of A&B or EMI's diversions of this stream?

7           A           Yes. As part of the system to divert water,  
8 there are many minor diversions or small-seep-type  
9 diversions which contributed to the overall amount of  
10 water that could be diverted.

11          Q           In your opinion, Dr. Strauch, is this pipe  
12 garbage?

13                   MR. FRANKEL: Objection, Your Honor.

14                   THE COURT: I think what she -- I think what  
15 Ms. Goldman is really asking is, is this still  
16 functional.

17                   MR. FRANKEL: That would be a better question.

18                   MS. GOLDMAN: I would withdraw that question.

19 And would you please answer the judge's question,  
20 Dr. Strauch?

21                   THE WITNESS: If it is still connected to the  
22 spring and if water is flowing through it, then it is  
23 still operating as a diversion.

24 BY MS. GOLDMAN:

25          Q           To your knowledge, are those things true?

1           A           Yes.

2                   THE COURT:  There might have been some  
3    confusion there, Doctor.  I believe what Ms. Goldman was  
4    asking was do you know if this pipe is still working.

5                   THE WITNESS:  I -- last time I visited this  
6    pipe, there was still water flowing in it, which was two  
7    weeks ago or so.

8                   THE COURT:  Okay.

9    BY MS. GOLDMAN:

10           Q           Let's look at Trial Exhibit 59 please,  
11    Dr. Strauch.  Let me know when you have it up.

12           A           Okay.

13           Q           Mr. Strauch, have you seen this photograph  
14    before?

15           A           I have.

16           Q           Dr. Strauch.

17           A           Yes.

18           Q           When or how have you seen it?

19           A           I -- I have been to this part of the stream.

20           Q           Have I also showed you this photo?

21           A           Yes.  That too.

22           Q           And when I showed you this photo, are you able  
23    to tell where this photo is taken?

24           A           From only the information in the photo?  No.

25           Q           And from a hydrologist's point of view, from

1 your personal point of view, does this photo appear to  
2 contain trash?

3 A So I can't see the entirety of the setting, so  
4 it would be difficult to determine if these items are  
5 connected to anything else, if they are a part of a  
6 structure. From just what's in this photograph, no.

7 Q Can you turn the page -- or, I'm sorry. The  
8 next exhibit please, Dr. Strauch. Trial Exhibit 60.  
9 What do you notice about this photo?

10 A There is water and either a pool or a run  
11 of -- appears to be a stream. Appears to be a bank of a  
12 stream. This is a strawberry guava root and a piece of  
13 wrought iron through it or on it, some sort.

14 Q Are you able to tell from this photo alone  
15 whether this is trash?

16 A It's hard to determine because you can't tell  
17 the entirety of the setting. So -- no.

18 Q Do you have -- when you visit various  
19 diversion structures along a stream, how do you get from  
20 one diversion structure to another?

21 A Either hiking or driving or helicopter.

22 Q In those instances when you are hiking, do you  
23 hike along trails?

24 A Sometimes.

25 Q Would you say that you have hiked probably --

1       how many trails in that East Maui watershed would you say  
2       you hiked on?

3           A           So some of the trails are not official trails,  
4       they're not part of the Na Ala Hele trail system.  Some  
5       of 'em are pig hunting trails.  Some of 'em we build  
6       ourselves.  So I'm not sure how to quantify the number of  
7       trails.

8           Q           Okay.  Have you hiked alongside of Hoolawa  
9       Stream?

10          A           Yes.

11          Q           How many times have you hiked there?

12          A           I mean, maybe six or eight times.

13          Q           On those hikes, have you observed trash on the  
14       trails?

15          A           On the trails?  No.

16          Q           What's a terminal waterfall?

17          A           It's the point of which a stream channel  
18       discharges into the ocean over a waterfall.  So the  
19       terminal point of a stream that ends at a waterfall.

20          Q           Of the 13 streams that did not have IIFS --  
21       new IIFS specs for them in 2018, do any of them have  
22       terminal waterfalls?

23          A           Yes.  Kolea has a terminal waterfall,  
24       Nailiilihaele has a terminal waterfall, Kailua has a  
25       terminal waterfall, and Waipio has a terminal waterfall.

1 THE COURT: What was the second one?

2 THE WITNESS: Nailiilihaele.

3 THE COURT: Spell please.

4 THE WITNESS: N-a-i-l-i-i-l-i-i-l-i-i-h-a-l-e

5 -- I believe it was previously spelled correctly. I'm  
6 not sure if I spelled it correctly. Sorry.

7 THE COURT: That's a good out.

8 BY MS. GOLDMAN:

9 Q Okay. So how do you know -- so let's go  
10 through them then. You said Kolea and Nailiilihaele.  
11 What was the third?

12 A Kailua.

13 Q And what was the fourth?

14 A Waipio.

15 Q Okay. How do you know that Kolea has a  
16 terminal waterfall?

17 A Because it was based on the topographic map,  
18 based on recognizance or field work as it conducted  
19 previously, and based on our waterfall's database.

20 Q Have you seen it?

21 A No, I have not seen the terminal waterfall on  
22 Kolea.

23 Q What about Nailiilihaele? How do you know  
24 there's a terminal waterfall there?

25 A Based on the previous information that I



1 cited.

2 Q What other -- is the presence of a terminal  
3 waterfall -- does that mean something to you?

4 MR. FRANKEL: Objection. Vague. Looking for  
5 expert opinion.

6 THE COURT: Sustained.

7 MS. GOLDMAN: Your Honor, how long -- how much  
8 longer should I be planning that we're going today?

9 THE COURT: If you're wondering if this would  
10 be a good time to end, the answer would be yes.

11 MS. GOLDMAN: Okay.

12 THE COURT: It's 4 o'clock. All right. So  
13 let's do some planning with Dr. Strauch about next week.  
14 'Cause we still have Chair Case to come back. We're  
15 obviously not pau with Dr. Strauch. We may or may not be  
16 done with Mr. Higashi. Is there anyone else? Is Mr. Gon  
17 going to testify? 'Cause his name was mentioned before,  
18 but I haven't heard it lately.

19 Yes, Mr. Wynhoff?

20 MR. WYNHOFF: So Your Honor, let me start off  
21 with some good news and then we'll go to what may or may  
22 not be the bad news. We're not going to call Mr. Gon.

23 THE COURT: Okay.

24 MR. WYNHOFF: We are not going to call  
25 Mr. Higashi to come back. Mr. Schulmeister has very

1 kindly agreed to waive his right to cross-examine. We  
2 appreciate that. So there's two down right there.

3 I believe my direct with Chair Case will be  
4 less than another hour. And that will give Mr. Frankel  
5 the opportunity to cross-examine. Ms. Goldman can say  
6 how much more she has with Dr. Strauch. And that -- and  
7 then that will be the end of our case.

8 So I'm very, very hopeful that we will finish  
9 Monday, as I'm certain everybody else is.

10 THE COURT: I'm just trying to juggle between  
11 Dr. Strauch and Chair Case. 'Cause they both have  
12 lots --

13 MS. GOLDMAN: Your Honor.

14 THE COURT: I'm sure they both have lots of  
15 duties. So let's try and figure out what works best for  
16 both of them.

17 MS. GOLDMAN: Your Honor, they both have a  
18 conflict on their schedule. That is a Water Commission  
19 meeting on Tuesday morning. They are both available  
20 Monday.

21 THE COURT: Great. Okay. Do we have a  
22 preference about who goes first?

23 MS. GOLDMAN: Might it be possible to check in  
24 with the witnesses and then let everyone know?

25 THE COURT: That will be fine. Please do that

1 so people know who they're going to be starting with at  
2 9:00.

3 MR. FRANKEL: And can you let us know on  
4 Saturday?

5 MR. WYNHOFF: Oh, sure, absolutely.

6 MS. GOLDMAN: Before then.

7 MR. WYNHOFF: Maybe even tonight. We'll do it  
8 very soon. Actually I appreciate the courtesy of you  
9 letting us do this, Your Honor. Absolutely.

10 THE COURT: No problem. I don't want anyone  
11 to get surprised on Monday morning when they thought they  
12 had the lunch break to prepare, you know.

13 MR. WYNHOFF: That's very fair.

14 THE COURT: Yes, Mr. Frankel?

15 MR. FRANKEL: I think Mr. Wynhoff gave us his  
16 estimate of direct on Chair Case of an hour. Do we have  
17 an estimate of Dr. Strauch? Are we almost done?

18 MS. GOLDMAN: Sure. Definitely less than an  
19 hour.

20 THE COURT: Okay.

21 MS. GOLDMAN: I am unable to estimate further  
22 just because it's been interrupted a few times, etc.

23 MR. FRANKEL: Really?

24 MS. GOLDMAN: I know.

25 THE COURT: Don't blame it on him. He's just

1 doing his job. All right. Anything else we can --  
2 before -- let's excuse Dr. Strauch now that we know what  
3 the plan is for Monday. 'Cause I'm sure he'd like to get  
4 on with things.

5 Doctor, thank you very much. And we'll see  
6 you again on Monday. And they will let you know whether  
7 you're coming earlier or later. All right? Thank you  
8 very much. Take care. Have a good weekend.

9 Mr. Frankel, you had your hand up?

10 MR. FRANKEL: Yeah. Three issues I'd like to  
11 address. First of all, I want to talk about when closing  
12 argument may be because that effects my weekend  
13 dramatically. But again, I'd like to -- as you know --  
14 are we still on the record by the way.

15 THE COURT: We are. Do we need to be?

16 MR. FRANKEL: Well, I don't know.

17 MR. WYNHOFF: We don't have anything for the  
18 record, Your Honor.

19 THE COURT: Why don't you tell us the three  
20 things you wanted to talk about without getting into the  
21 weeds on each one so I can figure out whether it should  
22 be on the record or not.

23 MR. FRANKEL: Okay. Closing. When the  
24 findings of fact, conclusions of law are going to be due.  
25 And the third thing is sort of a technological issue. We

1 would like to, I don't know if it's possible, using Webex  
2 to post exhibits. You know you have a gallery view now.  
3 If one of the gallery things could have an exhibit posted  
4 to it. We -- it's our understanding that the Webex host  
5 has control. I guess we'd be showing a screen. I don't  
6 know if you want to get into all the details now. But  
7 that's the third issue.

8 THE COURT: Because what I was thinking of is,  
9 you know, we still need to dispose of the Higashi motion  
10 and A&B's motion about admitting various documents. I  
11 spent quite a bit of time on those last night. So I feel  
12 ready to -- I know we've already argued the documents  
13 one. I don't think we've really had a formal argument on  
14 the Higashi one yet. I think we just kind of talked  
15 about it a little bit. Right? So we need to have oral  
16 argument on that.

17 So my question is do you want to do that right  
18 now or at the end of Monday or Monday at 8:30, or what's  
19 your folks' preference?

20 MR. WYNHOFF: I'm ready any time. Now, 8:30.  
21 That might be better. But any time that works for  
22 Mr. Frankel and the Court is fine with me.

23 THE COURT: I'm flexible. I just don't want  
24 to forget about it.

25 MR. FRANKEL: So as far as A&B's motion,

1 when -- I think I pointed out that I hadn't had an  
2 opportunity to go individually through each one. And I  
3 mean, if you were going to -- if you were going to deny  
4 their motion, there's no reason for me to go through  
5 every single one, which is a lot.

6 So yes. I don't know if we're going to do  
7 that now or we're going to do it Monday. But I just want  
8 to -- I know you think we've argued it, but I don't think  
9 we actually completed the argument on it.

10 THE COURT: I mean, I'll -- if there's no  
11 objection, I'll give you my inclination on both.  
12 That's -- if you want to wait and have full argument and  
13 all that, I'm happy to do that too.

14 MR. WYNHOFF: I'd be happy to hear your  
15 inclination, Your Honor.

16 THE COURT: Mr. Schulmeister, any problem with  
17 that?

18 MR. SCHULMEISTER: No. That's fine.

19 THE COURT: Mr. Frankel?

20 MR. FRANKEL: That sounds good.

21 THE COURT: Okay. So -- my gosh. I'm so  
22 sorry, Mr. Rowe. Any objection from you?

23 MR. ROWE: No. I said earlier no, Your Honor.

24 THE COURT: Sorry. I didn't hear it.

25 MR. ROWE: You're fine.

1           THE COURT: I changed my view on my screen and  
2     you're all like little tiny thumbnails now. So it's  
3     harder to see folks. Hang on. Let me change it back to  
4     where it was. That's better. Okay.

5           All right. So on Plaintiff's Trial Brief No.  
6     3 regarding Higashi, and I know we haven't had full  
7     argument on this. But again, it's an inclination. You  
8     know, the usual course when -- if it can be shown that an  
9     expert has gone outside or in addition to their disclosed  
10    opinions, the usual remedy is to strike them. This is  
11    very different because Mr. Frankel's asking me instead of  
12    striking the new opinions, to put two entire deposition  
13    transcripts into evidence. I'm just not inclined to do  
14    that.

15           Based on the -- on the other hand, if it is  
16    shown that indeed these are new opinions that were not  
17    disclosed, I'm going to strike them. I mean, that's --  
18    we go through a lot of trouble to do expert reports and  
19    there's a good reason for it. Based on my review of the  
20    motion, it looks like at least there were at least two  
21    new opinions.

22           Mr. Higashi at one point explained that he  
23    had -- he had -- I don't want to get too far into the  
24    weeds on the exact wording of it. But he had come up  
25    with a different opinion and he said -- when asked why,

1 he said, Well, I looked at the model more closely before  
2 coming in to testify. I mean, that's a pretty striking  
3 example of a new opinion that was not disclosed.

4 And then the other one was the answer about  
5 the 85 percent reduction in habitat units would not have  
6 a significant ecological impact. And he basically --  
7 from my reading of the motion, it appears that he changed  
8 his opinion on that.

9 I couldn't really -- there might have been  
10 other examples, but I couldn't quite tell from the motion  
11 because it didn't fully quote the testimony and the  
12 deposition section. And I did not have time to read  
13 through the two depositions. So I was kind of relying on  
14 just what's in the brief. So that's my inclination on  
15 that motion.

16 On A&B's motion, my inclination is that, you  
17 know, and let's just call it Exhibit X for short. If  
18 Exhibit X is not specifically referenced in the CWRM D&O  
19 or was not provided to the BLNR before it made its two  
20 decisions, I just think it's extremely limited relevance.  
21 There might be some marginal relevance. But under Rule  
22 403 analysis, my inclination is to bar it.

23 I just don't want to be in a situation where  
24 we're loading up this record with hundreds and hundreds  
25 of pages that I have not had time to review. I don't



1 know what's in there. I don't know how they're going to  
2 be used. And it seems like there will probably be a lot  
3 of fighting about it. And it's just a big consumption of  
4 time.

5 So I'm more than happy to get into the record  
6 any document that has some real connection to either the  
7 D&O or the BLNR decision making. But other than that,  
8 A&B is going to have to really give me a more specific  
9 showing of why they should come in. They're not going to  
10 come in just because they were part of the CWRM record  
11 absent these other showings that I mentioned. So that's  
12 my inclination on that.

13 Okay. So I don't know if that helps your  
14 decision -- oh, your other -- the other things you  
15 raised, Mr. Frankel. And I know this is not going to  
16 make you happy based on your prior statements, but that's  
17 the way it goes. I foresee a pretty lengthy process.

18 I told you folks before about Judge  
19 Castagnetti's experiment where first she solicited the  
20 proposed FOF/COL and then had closing arguments. I want  
21 to give it a try. She thought it was useful, and I'm  
22 always trying to find better ways to do things. That  
23 sounded like an interesting option, so I just wanted to  
24 try it.

25 Obviously I'm going to consult with counsel,

1 but I can see how it will take at least three to four  
2 weeks to come up with proposed FOF/COL. And it wouldn't  
3 surprise me if people need more time than that. I went  
4 through a pretty lengthy bench trial a couple years ago,  
5 and I think everyone was begging me for three months to  
6 do their FOF/COLs. So that's that.

7 And on the closing argument, that wouldn't be  
8 until after the proposed FOF/COL came in under what I'll  
9 call the Castagnetti procedure. So I don't see an  
10 imminent type closing and imminent FOF/COL.

11 Yes, Mr. Frankel?

12 MR. FRANKEL: So I do want to point out these  
13 revocable permits get renewed each year or have every  
14 year since 2005, and it's going to be on the Board of  
15 Land and Natural Resources agenda in the very near  
16 future. There's already been motions in this case to  
17 find that the case is moot. And I have a very real  
18 concern that the Board of Land and Natural Resources will  
19 take this up before the Court has an opportunity to  
20 render a decision.

21 And you know, I will again say I have been  
22 working on my findings of fact, conclusions of law. It's  
23 detailed. Every finding of fact has citations. I'll be  
24 ready to file it within two days after trial is done.  
25 And I'm very concerned about the length of time and

1       how -- how things -- how certain events may proceed in a  
2       judicial manner.

3               THE COURT:  It's a valid question.  But I  
4       can't let external events like that hijack my decision-  
5       making process.  I mean, I have to go through a certain  
6       process and do it carefully.  I mean, you guys have been  
7       living with this case for a long time.  You know all of  
8       its ends and outs.  I'm still learning.

9               MR. FRANKEL:  Well, the parties have -- they  
10       can submit their findings of fact, conclusions of law  
11       much sooner.  I don't want to bang this point too much,  
12       but there's eight of them against one of me.  And if I  
13       can get the findings of facts, conclusions of law done in  
14       a couple days after trial, they certainly don't need  
15       three or four weeks.  I don't think that's fair.

16              THE COURT:  Well, just sort of standard  
17       practice in this community, I don't think I've ever heard  
18       of a judge ordering proposed FOF/COL to be done in a  
19       couple of days.  That doesn't sound at all familiar to  
20       me.  So --

21              MR. FRANKEL:  In the -- I believe in the  
22       Pohakuloa case we did it in a week, Your Honor.  That's  
23       my recollection.

24              THE COURT:  Well let me hear from other folks.  
25       For all I know, you guys want to speed up too.  I kind of

1       doubt that, but let's find out. Ms. Goldman's shaking  
2       her head no 'cause --

3                 MR. WYNHOFF: No.

4                 THE COURT: 'Cause she's going to have to  
5       draft them.

6                 MR. WYNHOFF: At one point I heard three  
7       months, Your Honor. Oh, I'm sorry, Your Honor.

8                 THE COURT: No. Go ahead.

9                 MR. WYNHOFF: Let me know when you're ready.

10                THE COURT: I'm ready. Go ahead.

11                MR. WYNHOFF: At one point I heard three  
12       months. It's not going to take us three months. I don't  
13       think it's only going to us two days though. So I don't  
14       have any particular reason to drag it out. You know, but  
15       I'm sure we're going to need a couple of weeks. That  
16       would be my guess from my point of view.

17                THE COURT: Mr. Schulmeister?

18                MR. SCHULMEISTER: Is Ms. Akagi listening?  
19       I'd like to have her weigh in on this.

20                THE COURT: Of course. That's fine.

21                MS. AKAGI: I am listening. Can you hear me?  
22       Okay. Sorry. Put the microphone down. Better?

23                THE COURT: Much better. Just fine.

24                MS. AKAGI: Okay. I would like at least three  
25       to four weeks.

1 MR. FRANKEL: Your Honor.

2 THE COURT: Yes.

3 MR. FRANKEL: The defendants filed very  
4 voluminous Rule 52 motions with lots of citations to  
5 evidence. And they cranked that out in, you know, I  
6 don't know, couple days. That was -- those motions to  
7 dismiss are the essence of their case distilled in dozens  
8 and dozens of pages. And they cranked that out. And I  
9 just -- sorry. Okay.

10 THE COURT: All right. I haven't heard from  
11 Mr. Rowe yet.

12 MR. ROWE: Your Honor, to be perfectly frank I  
13 would anticipate that the County would be joining the  
14 FOF/COLs of one of the other defendants.

15 THE COURT: Okay. Thank you.

16 Mr. Wynhoff, you had your hand up again.  
17 Anything in particular?

18 MR. WYNHOFF: No, Your Honor. I was just  
19 signalling that I don't think we had filed dozens and  
20 dozens of pages. That's all. So thank you very much,  
21 Your Honor.

22 THE COURT: Let me go off record and check  
23 with our court reporter.

24 (A discussion was held off the record.)

25 THE COURT: Back on record. I'm going to give

1       it some more -- I'll give it some more thought over the  
2       weekend, but my inclination is we're going to end up at  
3       three or four weeks, Mr. Frankel. I'm sorry. And if you  
4       think I want to go through this trial in order to get  
5       mooted out, I think you're underestimating the Court's  
6       free time ratio.

7                       Yes, Mr. Wynhoff?

8                       MR. WYNHOFF: Your Honor, I just wanted to let  
9       you know that I thought maybe if I could take a minute or  
10      so on your initial ruling when you're ready for that.  
11      That's all. On Trial Memo No. 3 about Mr. Higashi.

12                      THE COURT: We haven't -- I don't think we're  
13      arguing it yet, but I can circle back to you.

14                      MR. WYNHOFF: Okay, Your Honor. That's fine.

15                      THE COURT: Okay. All right. So other than  
16      circling back to Mr. Wynhoff to see what he wants to talk  
17      about on the Higashi motion, anything else anyone wants  
18      to raise right now?

19                      Not seeing any, okay, Mr. Wynhoff.

20                      MR. WYNHOFF: So Your Honor, the -- the point  
21      I'd like to make about the Higashi motion is we didn't  
22      call him. We didn't even call him as a witness, much  
23      less call him as an expert. So if Mr. Frankel wants to  
24      start asking him questions asking for his expert opinion,  
25      I don't know how we would get sanctioned for, you know.

1 I mean, it just strikes me as kind of weird. Mr. Frankel  
2 is saying we should have given an expert report when we  
3 didn't even call him, much less as an expert. That's one  
4 thing.

5 And then the other point which I think covers  
6 most of what I heard Your Honor's inclination was, to the  
7 extent that his expert -- what he said in trial is  
8 different, then Mr. Frankel got the exact sanction that  
9 he's entitled to, which is to read into testimony his  
10 supposedly contrary deposition testimony. Thank you,  
11 Your Honor.

12 THE COURT: Understood. I can elaborate on  
13 that. But again, it's just an inclination at this point.  
14 I don't know when you folks want to actually argue it.

15 MR. WYNHOFF: I don't think I -- honestly, I  
16 don't think I'm going to have much more to add, Your  
17 Honor. I would hope that you would give some thought to  
18 it on the basis that it wasn't us that called him. And  
19 if you decide that you won't, then I greatly respect  
20 that.

21 THE COURT: No. I did give that thought  
22 because it's very unusual to be calling the other side's  
23 expert early in your case.

24 But I go back to the purpose of the disclosure  
25 rule. And that's so that somebody can know and make

1 decisions based on the disclosures. And that includes  
2 being able to ask an expert, Well, isn't it true your  
3 opinion is X. And if the guy can just change his opinion  
4 because that question was asked, then the disclosure  
5 rules really don't amount to very much.

6 All right. Go ahead, Mr. Wynhoff.

7 MR. WYNHOFF: Okay. And again, I really  
8 respect it, Your Honor. And I'm probably beating a dead  
9 horse, but we named him as a protective naming as an  
10 expert. We didn't file an expert report because we  
11 didn't decide to call him as an expert.

12 So you know, I mean, maybe -- and I've never  
13 seen this before. But maybe when Ms. Weston was in the  
14 case, she should have filed a pretrial statement and say  
15 she's not going to call him as an expert. But it seems  
16 to me that not filing a disclosure is basically a  
17 statement that we're not calling him as an expert. So we  
18 didn't call him as an expert, and I don't think there's  
19 an issue of him changing his expert opinion. We never  
20 asked him for an expert opinion.

21 THE COURT: Well, but he was named as an  
22 expert; right?

23 MR. WYNHOFF: He was named as an expert. Yes,  
24 you're right. And as a lay witness.

25 THE COURT: He was name as an expert and a lay



1 witness and his deposition was taken.

2 MR. WYNHOFF: Okay. That's fine. I  
3 understand, Your Honor. I -- I guess I'll -- if that's  
4 the way you end up ruling, I'll have to give it some  
5 thought for the next time. But I understand.

6 THE COURT: It's a lit -- it's frankly a  
7 little bit of a gray area, but I came down on the side of  
8 disclosure because I think that's what the case law  
9 guides us to do. All right.

10 MR. WYNHOFF: Thank you, Your Honor.

11 THE COURT: Okay. What else? Anything else?  
12 All right. So we'll see you all at 9:00. You're going  
13 to -- on Monday. You're going to let everybody know no  
14 later than -- at some reasonable hour tomorrow on what  
15 the order is for Monday morning. And we'll go from  
16 there. All right? Have a good weekend, everybody.  
17 We're off record. We're adjourned.

18 (End of proceedings.)

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